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HISTORY OF THE GREAT WAR
MILITARY OPERATIONS

HISTORY OF THE GREAT WAR

BASED ON OFFICIAL DOCUMENTS

BY DIRECTION OF THE HISTORICAL SECTION OF THE
COMMITTEE OF IMPERIAL DEFENCE

MILITARY OPERATIONS

FRANCE AND BELGIUM, 1916

2ND JULY 1916 TO THE END OF THE BATTLES OF THE SOMME

MAPS AND APPENDICES

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PREFACE

THE documents reproduced in this volume include various G.H.Q. and Army instructions issued during the course of the Battles of the Somme ; specimen corps, divisional, infantry brigade and artillery instructions and orders for the dawn attack on the 14th July ; the same for the Battle of Flers—Courcellette, 15th September, with special orders and instructions to the tanks which then went into action for the first time ; and certain artillery and gun-ammunition statistics.

NOTE.—Where the map co-ordinates used in orders are not explained, reference is made to Map 1A (" 1916 " Vol. I.) which shows in the margin the method of reading them.

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THE SOMME, 14TH JULY 1916

FOURTH ARMY OPERATION ORDER No. 4.

1. The Fourth Army will attack the enemy's second line between **Sketches LONGUEVAL** and **BAZENTIN-LE-PETIT WOOD** at Zero on "Z" day. 10, A.

This attack will be made in conjunction with a French attack South of **GUILLEMONT** and an attack by the Reserve Army North of **LA BOISSELLE**.

2. The following objectives are allotted to Corps :—

XIII. Corps.

1st Objective. Enemy's defences (front and support trenches) from point S.18.c.2.9. to S.15.c.1½.4. [**Longueval** to **Bazentin-le-Grand**.]

2nd Objective. **LONGUEVAL VILLAGE.** **DELVILLE WOOD.** **BAZENTIN-LE-GRAND Village.**

XV. Corps.

Preliminary Objective. **MAMETZ WOOD** if not already captured.

1st Objective. Enemy's defences (front trench) from point S.15.c.1.4. to S.7.d.2.2. [**Bazentin-le-Grand** to **Martinpuich light-railway track**.]

2nd Objective. **BAZENTIN-LE-GRAND WOOD.** **BAZENTIN-LE-PETIT WOOD.** **BAZENTIN-LE-PETIT Village** and Cemetery.

III. Corps.

In order to protect the left flank of the attack of XIII. and XV. Corps, the III. Corps will establish a strong defensive flank on the line Communication Trench running through **PEARL WOOD** as far North as X.17.b.6.9 [i.e. flanking **Mametz Wood** on west]. **THE CUTTING.** North edge of **CONTALMAISON Village.** **BAILIFF WOOD.** Trench running N.N.W. from point X.15.b.5.3 as far North as X.9.c.8.2 (Approx.). X.15. Central [approximates to III. Corps front on Sketch 10].

As soon as this line is secured strong patrols will be pushed out towards **POZIÈRES**.

The III. Corps will also assist the XIII. and XV. Corps with enfilade fire from its heavy artillery.

3. A programme of the preliminary bombardment will follow.¹

¹ Appendix 2.

4. (a) The 2nd Indian Cavalry Division will be disposed as follows by Zero on "Z" day :

1 Brigade S. of MONTAUBAN. This Brigade will place one regiment each at the call of the XIII. and XV. Corps to assist in the capture of the 2nd objectives allotted to these Corps should it be possible for the Cavalry to penetrate. The remaining regiment of the Brigade to be held in readiness to follow and cover the action of the other two regiments by seizing HIGH WOOD between LONGUEVAL and BAZENTIN-LE-PETIT. The remainder of the Division to assemble between BECORDEL and DERNANCOURT, and be prepared to follow the leading Brigade and exploit our success, should the final objectives be captured and the enemy's line be pierced.

(b) The 1st Cavalry Division will be assembled in the BUIRE Area by Zero on morning of "Z" day and be prepared to move at $\frac{1}{2}$ hour's notice.

(c) The 3rd Cavalry Division will remain in bivouac in the LA NEUVILLE Area [about 7 miles East of AMIENS] prepared to move at $\frac{1}{2}$ hour's notice.

5. As at present arranged "Z" day will be 10th July, and Zero about 8 A.M., but definite date and hour will be communicated as soon as decided.

6. Acknowledge by wire.

H.Q., Fourth Army,
8th July, 1916.
Issued at 3.30 P.M.

A. A. MONTGOMERY,
Major-General,
General Staff, Fourth Army.

THE SOMME, 14TH JULY 1916

FOURTH ARMY PROGRAMME OF THE PRELIMINARY BOMBARDMENT

1. ARTILLERY TASKS.

In addition to the objectives allotted to Corps in paragraph 2 Sketches of Operation Order No. 4,¹ Corps will deal with the following Villages, A, 10. Woods and Lines of approach therefrom as under :—

- (a) XIII. Corps. WATERLOT FME.
FLERS.
- (b) XV. Corps. FLERS.
HIGH WOOD.
MARTINPUICH.
- (c) III. Corps. MARTINPUICH.
LE SARS.
BAPAUME.

The Reserve Army are dealing with POZIÈRES and COURCELETTE. The French Army are dealing with GUILLEMONT, GINCHY and WATERLOT FERME.

2. CO-OPERATION BETWEEN CORPS.

The XV. Corps will detail 6 batteries of Siege Artillery to assist the XIII. Corps.

The III. Corps will cover the N.W. flank of the XV. Corps with a protective barrage. It will detail 6 batteries of Siege Artillery to assist the XV. Corps, together with any other artillery that can be spared, and will arrange to enfilade the LONGUEVAL—BAZENTIN-LE-GRAND Ridge.

3. WIRE CUTTING.

Will be commenced at once and carried out as required.

4. THE BOMBARDMENT.

With Heavy Howitzers will be carried out during the two days previous to "Z" day, and will be continued during the nights of "X"—"Y" days and "Y"—"Z" days.

5. NIGHT FIRING.

Will be carried out by the Field Artillery against the objectives allotted to Corps. The Heavy Artillery will deal with the more distant approaches and billets in addition to keeping up fire on the Corps Objectives.

¹ Appendix 1.

6. COUNTER-BATTERY WORK.

Will be vigorously carried out vide Fourth Army 4/AA/307/13 dated 4/7/16.¹

7. LIFTS.

Will be arranged by Corps.

8. AMMUNITION.

The following ammunition is available for expenditure daily during the two days' bombardment :

18 pounders } as required.
4.5" Hows. }

6" Hows. 250 rds. per gun.

8" Hows. 110 rds. per gun.

9.2" Hows. 50 rds. per gun.

12" Hows. 70 rds. per gun.

15" Hows. 25 rds. per gun.

H.Q., Fourth Army,
9th July 1916.

A. A. MONTGOMERY,
M.G.G.S.

¹ Not reproduced.

THE SOMME, 14TH JULY 1916

FOURTH ARMY INSTRUCTIONS FOR THE
ACTION OF CAVALRY ON "Z" DAY

In continuation of para. 4 of Fourth Army Operation Order No. 4, of 8th July, 1916.¹ Sketch A.
Map 1.

1. The places of assembly at zero on "Z" day will be as laid down in para. 4 of the above quoted Operation Order.

All three cavalry divisions will be ready to move immediately on receipt of orders after 4.0 A.M.

2. Communication.

(a) A Central Wireless Station for aeroplane wireless has been established at 30th Divisional Headquarters at MARICOURT.

(b) Wireless Stations have also been established at XIII. and XV. Corps Headquarters for communication between Cavalry Divisions and Corps Headquarters.

3. Baggage will be left in the billets and bivouacs of the night "Z-1"-"Z" day.

4. Movements. Roads used by infantry divisions should be avoided ; all moves should be made across the open country, as much as possible. Corps must be consulted as regards the above.

5. In the event of our attack on the enemy's second line being successful and the enemy's defences being broken through, the Army Commander's general plan for the employment of the cavalry is as follows :—

(a) Orders for the advance of the 2nd Indian Cavalry Division and the 1st Cavalry Division from a position of assembly south of MONTAUBAN will be issued by the XIII. Corps. Orders for the advance of the 3rd Cavalry Division from a position of assembly south of MONTAUBAN will be issued by the XV. Corps.

The Divisions in rear will move forward in turn into a position of assembly south of MONTAUBAN as soon as the 2nd Indian Cavalry Division advances.

¹ Appendix 1.

(b) The objectives of the Cavalry divisions will be as follows :—
 2nd Indian Cav. Div.—1st objective—HIGH WOOD

2nd „ —FLERS

LE SARRS.

1st Cav. Div.

—LEUZE WOOD

BOULEAUX WOOD

MORVAL

LESBOEUF

3rd Cav. Div.

—MARTINPUICH.

COURCELETTE.

} [Between Guille-
 mont and
 Combles]

H.Q., Fourth Army,
 12th July 1916.

A. A. MONTGOMERY,
 Major-General,
 General Staff, Fourth Army.

THE SOMME, 14TH JULY 1916
FOURTH ARMY MEMORANDUM ON THE
ACTION OF CAVALRY

1. With reference to the instructions for the action of the Sketch 10. cavalry of the Fourth Army on "Z" day, issued with Fourth Army No. 32/3/41 (G), of the 12th July.¹

2. The Army Commander does not consider that the entire responsibility for launching the 1st and 3rd Cavalry Divisions should rest on the Commanders of the XIII. and XV. Corps. He has decided, therefore, that although the actual orders for the advance of these two divisions will be issued by the XIII. and XV. Corps, the final decision as to whether the suitable time has come for launching them will rest in his hands.

3. The XIII. and XV. Corps will keep the Army Commander informed as to their views on the situation and the possibility of pushing forward the cavalry.

The Army Commander will also receive information from aeroplanes, specially detailed for this purpose, as to what is going on behind the enemy's lines.

On the result of the information received from these two sources, the Army Commander will make his decision and communicate it by telephone to the G.O.C. XIII. and XV. Corps, who will then issue the necessary orders for the cavalry.

4. As regards the 2nd Indian Cavalry Division, and especially the capture of HIGH WOOD by this Division, the Army Commander feels that he must leave this to the G.O.C. XIII. Corps to decide.

He places the greatest importance on the seizure of HIGH WOOD, and the enemy's new line on the east and west of it, as a stepping stone to a further advance.

The G.O.C. XIII. Corps will therefore issue orders for the 2nd Indian Cavalry Division to advance, on his own responsibility, when he considers the situation permits of it.

H.Q., Fourth Army,
13th July, 1916.
Issued at 10.45 A.M.

A. A. MONTGOMERY,
Major-General,
General Staff, Fourth Army.

¹ Appendix 3.

THE SOMME, 14TH JULY 1916

XIII. CORPS OPERATION ORDER No. 25.

13th July, 1916.

Sketches 1. (a) The Fourth Army will attack the enemy's second line
10, A, between LONGUEVAL and BAZENTIN-LE-PETIT WOOD at zero hour on
also 14th instant.
Map 1A The hour of zero at which the infantry assault will take place
("1916" will be 3.25 A.M.
Vol. I.).

This attack will be made in conjunction with an attack by the Reserve Army north of LA BOISSELLE.

(b) The following objectives have been allotted to Corps :—

XIII. Corps—LONGUEVAL VILLAGE, DELVILLE WOOD, BAZENTIN-LE-GRAND VILLAGE.

XV. Corps —BAZENTIN-LE-GRAND WOOD, BAZENTIN-LE-PETIT WOOD, BAZENTIN-LE-PETIT VILLAGE and cemetery.

III. Corps —In order to protect the left flank of the attack of XIII. and XV. Corps, the III. Corps will establish a strong defensive flank on the line communication trench running through PEARL WOOD as far north at X.17.b.6.9. (approx.)—THE CUTTING—north edge of CONTALMAISON VILLAGE—BAILIFF WOOD—trench running N.N.W. from point X.15.b.5.3—as far north as X.9.c.8.2—(approx.)—X.15. central.

The III. Corps will also secure CONTALMAISON VILLA at the earliest possible moment so as further to protect the left flank of the XV. Corps attack.

(c) Artillery tasks.

In addition to the above objectives, Corps will deal with the following villages, woods and lines of approach therefrom as under :—

XIII. Corps—WATERLOT FARM.

FLERS.

XV. Corps —FLERS.

HIGH WOOD.

MARTINPUICH.

III. Corps —MARTINPUICH.

LE SARS.

BAPAUME.

The Reserve Army are dealing with POZIÈRES and COURCELLETTE. The French Army are dealing with GUILLEMONT and GINCHY.

The XV. Corps will detail 6 batteries of Siege Artillery to assist the XIII. Corps.

The III. Corps will arrange to enfilade the LONGUEVAL—BAZENTIN-LE-GRAND ridge.

(d) The 1st and 3rd Cavalry Divisions and the 2nd Indian Cavalry Division will be held in readiness to exploit success.

2. The Corps Commander intends to secure the whole of the objectives allotted to the XIII. Corps on the 14th instant.

The Corps will attack with the 9th and 3rd Divisions in line, and one division, the 35th, in reserve; the 18th Division will form a defensive flank on the right.

3. The dividing line between the 9th and 3rd Divisions for the attack will be :—

The present boundary as far north as the corner of MONTAUBAN at S.27.b.2.1., thence a line running just east of the Quarry at S.21.d.10.5., west of the LONGUEVAL road as far as the junction at S.16.d.1.6., thence just east of the communication trench running from S.16.b.5 $\frac{1}{2}$.2 $\frac{1}{2}$. to S.16.b.6.5. towards S.5. central.

Objectives are allotted to Divisions as follows :—
Right (9th) Division.

1st objective—The capture of the portion of LONGUEVAL VILLAGE south of the WATERLOT FARM—LONGUEVAL—BAZENTIN-LE-PETIT road, and the establishment of a strong defensive flank along the south-eastern slopes of the ridge running from LONGUEVAL towards the north-east corner of BERNAFAY WOOD in touch with the left flank of the 18th Division in LONGUEVAL ALLEY. It will establish strong points at S.17.d.9.4. and S.18.c.2.9 $\frac{1}{2}$.

It will establish connection with the right of the 3rd Division at the northern end of the communication trench at S.16.b.6.5. and establish a strong point near the WINDMILL at S.17.a.1 $\frac{1}{2}$.2.

2nd objective—To advance the defensive flank to a line east edge of TRONES WOOD—WATERLOT FARM (inclusive) and the capture of the remainder of LONGUEVAL VILLAGE.

Its left flank will be covered by 3rd Division which will establish strong points about S.10.d.8.3. and near the road junction at S.11.c.5.8.

It will establish strong points at cross-roads at S.17.b.1 $\frac{1}{2}$.4. and cross-roads S.17.b.1.9.

3rd objective—DELVILLE WOOD.

Left (3rd Division).

1st objective—The enemy's second line from the left of 9th Division to about S.15.a.3.1. in touch with 7th Division.

It will assist the left of the 9th Division and establish a strong point at S.16.b.6.5.

It will assist the right of the 7th Division and establish a strong point about S.15.a.3.1. and at the elbow of trench at S.15.c.1 $\frac{1}{2}$.4.

The 7th Division is establishing strong points S.15.a.25.90. and S.15.a.25.20.

In the event of the attack of the 7th Division not succeeding, the

3rd Division will form a defensive flank along the road from S.15.c.1½.4. to MARLBOROUGH TRENCH and thence southwards as far as necessary along that trench.

In the event of the attack of the 3rd Division not succeeding, the 7th Division will form a defensive flank along MARLBOROUGH TRENCH.

2nd objective—The assistance of the 9th Division in its capture of LONGUEVAL VILLAGE and DELVILLE WOOD by protection of its left flank ; strong points to be established about S.10.d.8.8. and near road junction at S.11.c.5.8.

The capture of BAZENTIN-LE-GRAND.

The assistance of the 7th Division in its capture of BAZENTIN-LE-GRAND WOOD, the establishment of connection with it at the road junction at S.15.a.2.9. where 7th Division will establish a strong point, and the construction of a strong point at S.15.b.0.9.

The 7th Division is also establishing strong points at S.8.d.8.9. and along the northern edge of BAZENTIN-LE-PETIT VILLAGE.

NOTE.—All objectives will be consolidated as soon as captured and every preparation made to continue the advance immediately on receipt of orders.

It is of the highest importance to provide immediately an efficient artillery barrage to cover the line during consolidation. Divisional Commanders will make arrangements to strengthen this barrage as much as possible by moving forward certain batteries, where necessary, immediately the position has been secured.

Defensive Flank Division (18th Division).

This Division will establish a defensive flank along the eastern edge of TRONES WOOD connecting up with the French near MALTZ HORN FARM and with the right of the 9th Division.

If the wind is favourable the G.O.C., 18th Division, will cover the attack of the 9th Division by a heavy smoke barrage from WATERLOT FARM southwards ; this barrage to commence at 3.25 A.M. This barrage will be maintained, if possible, till 4.55 A.M.

The G.O.C., 18th Division, will be prepared to exploit success by the capture of GUILLEMONT and the connection of that place with MALTZ HORN FARM. This operation will not be undertaken without reference to Corps Headquarters.

The French XX. Corps are prepared to assist us to hold our defensive flank by artillery barrage along its entire front, if required.

Corps Reserve (under orders of G.O.C., 35th Division).

The troops in Corps Reserve will be disposed as below by 3 A.M. 14th instant :—

1 brigade, 35th Division—BILLON WOOD—BILLON FARM—BRONFAY FARM.

1 brigade, 35th Division—HAPPY VALLEY.

1 brigade, 35th Division—GROVETOWN.

*Corps Cavalry Regiment (less detachments)—GROVETOWN.

The Motor Machine Gun Battery and Corps Cyclist Battalion (less detachments) will remain as now allotted.

The Corps R.E. will be employed in accordance with instructions issued by the C.E., XIII. Corps.

* Orders for this move will be issued by " Q ".

4. The preliminary artillery bombardment will be continued in accordance with XIII. Corps Artillery Operation Order No. 4.

5. The attack on the 14th will be preceded by an artillery bombardment carried out in accordance with XIII. Corps Artillery Operation Order No. 5, the last 5 minutes of this bombardment from 3.20 to 3.25 A.M. will be intense.

The artillery will make its first lift at 3.25 A.M. at which hour the infantry will assault.

The times shown against the lines of the sketch map attached ¹ are those at which the Corps Artillery will *lift* from those lines ; divisional artillery will conform generally to these lifts but can remain on longer at the discretion of Divisional Commanders who can insert more lifts for divisional artillery if desired.

6. Employment of the Cavalry Division.

Reference para. 1 (d) instructions as to the action of the cavalry are issued herewith.¹

7. Watches will be synchronised from Corps Headquarters at 6 P.M. and 12 midnight on 13th instant.

8. Divisional Headquarters from evening of 13th instant will be as below :—

9th Division —L.16.b.4.2.

3rd Division —F.24.c.6.5.

35th Division—L.8.c. central.

18th Division—COPSE RAVINE.

9. Corps Headquarters will remain at CHIPILLY.

Issued at 1.30 P.M.

W. H. GREENLY,
B.G., G.S.

¹ Not reproduced.

THE SOMME, 14TH JULY 1916

3RD DIVISION OPERATION ORDER No. 84

13th July, 1916.

Sketch 10, 1. At "zero" hour on 14th July the XIII. Corps will attack the enemy's second line of defence from WATERLOT FARM to BAZENTIN-LE-GRAND Village in conjunction with an attack by the XV. Corps on BAZENTIN-LE-GRAND Wood and BAZENTIN-LE-PETIT Wood.
 also
 Map 1 A
 ("1916"
 Vol. I.).

The time of zero will be communicated to all concerned.

2. The 3rd Division will attack and consolidate the enemy's second line from just east of the communication trench between S.16.b.6.5. and S.16.b.5½.2½ to S.15.a.2.1., and the Village of BAZENTIN-LE-GRAND.

The 9th Division is attacking on the right, and the 7th Division, XV. Corps, on the left of the 3rd Division.

3. Tasks are allotted to Brigades as follows :—

8th Inf. Bde.

First. To capture and consolidate the enemy's support trenches from trench junction S.16.b.6.5. (inclusive) to west of trench junction S.15.b.5.1.

Second. To assist the 9th Inf. Brigade in the capture of BAZENTIN-LE-GRAND by protecting its right flank.

Third. To establish a defensive line along the road and hedges from S.9.d.5.0. to S.16.b.7.7.

Fourth. To keep touch with and assist the 9th Division in the capture of LONGUEVAL by protecting their left flank by establishing strong points about S.10.d.9.2. and near road junction S.11.c.5.8.

The 8th Infantry Brigade will be prepared to form a defensive flank to protect the right of the 3rd Division if necessary.

9th Inf. Brigade.

First. To capture and consolidate the enemy's support line from S.15.b.5.1. to about S.15.a.3.1. in touch with 7th Division.

Second. To capture and fortify the Village of BAZENTIN-LE-GRAND.

Third. To establish a defensive line from road junction at N.E. corner of BAZENTIN-LE-GRAND Wood—along track or ditch to road junction S.15.a.9.9., and thence along road to S.9.d.5.0.

Fourth. To keep touch with and assist the attack of the 7th

Division on BAZENTIN-LE-GRAND Wood, and if necessary to establish a defensive flank from elbow of trench at S.15.c.1½.4. to point where MARLBORO TRENCH crosses track about S.20.b.4.9. and thence south along MARLBORO TRENCH.

4. Strong points will be constructed at the following points

By 8th Inf. Bde.

- (i) S.16.a.8.3.
- (ii) Trench junction S.16.a.2.0.
- (iii) " " S.15.d.3.9.
- (iv) Rectangle S.16.b.6.5.—S.16.b.3.6 } Special party of
S.16.b.2.3.—S.16.b.5.2. } Pioneers allotted.
- (v) Near S.10.d.9.2.
- (vi) Near road junction S.11.c.5.8.
- (vii) Trench junction S.15.b.5.2. (viii) S.16.a.2.3.

By 9th Inf. Bde.

- (i) Where trench meets track about S.15 central.
- (ii) S.15.c.5.7.
- (iii) S.15.c.2.4. at elbow of trench.
- (iv) BAZENTIN-LE-GRAND Village { Special party of R.E. and
Pioneers allotted.
- (v) Road junction S.15.a.9.9.
- (vi) S.15.a.3.1.

Plans of the work to be carried out at BAZENTIN-LE-GRAND Village have been prepared by the C.R.E. and issued to R.E. and Pioneer Officers and 9th Infantry Brigade.

Both 8th and 9th Infantry Brigades will dig a communication trench back from the German front line to the dead ground on the southern slopes of the ridge.

5. The work of consolidating the position is to be taken in hand immediately a footing has been gained in the German trenches. All working parties must be told off beforehand to special tasks. Carrying parties for carrying forward stores and tools necessary will be detailed under officers, and will follow immediately in rear of the assaulting troops.

The importance of consolidating and holding all ground gained is to be impressed on all ranks, and working and carrying parties especially must be kept in hand and made to realize the urgent necessity for carrying through their tasks with even more vigour and determination than is required in assaulting the position.

Wiring the front and putting machine guns in position in strong points are the two most urgent matters.

6. Troops are allotted as under :

8th Infantry Brigade.

8th Inf. Bde. (less 4 machine guns).

1 Section Cheshire Field Co. R.E.

1 Company 20th K.R.R.C. (Pioneers).

9th Infantry Brigade.

9th Inf. Bde. (less 4 machine guns).

1 Section Cheshire Field Co. R.E.

Special party to assist in fortifying BAZENTIN-LE-GRAND Village.

56th Field Co. R.E. (less 2 Sections).

1½ Companies 20th K.R.R.C. (Pioneers).

Divisional Reserve.

R.E. { Cheshire Field Co. R.E. (less 2 Sections).
 2 Sections 56th Field Co. R.E.

Pioneers. 20th K.R.R.C. (less 2½ Companies).

Reserve Brigade.

76th Infantry Brigade.

East Riding Field Co. R.E.

Garrison of present trenches (Commander to be detailed by 76th Inf. Bde).

1 Battalion 76th Inf. Bde till Reserve Brigade is moved.

4 Guns 8th Brigade Machine Gun Company.

4 Guns 9th Brigade Machine Gun Company.

7. The disposition of the Brigades for the attack has already been explained to Brigadiers by the G.O.C. Division.

Parties for clearing trenches and dugouts will be detailed of a strength equal to 25% of the assaulting troops.

Brigadiers will arrange to mark out :

(a) Lines of advance of battalions from the present front system of trenches to the line of deployment.

(b) The line of deployment of the assaulting battalions.

(c) The assembly positions in CATERPILLAR WOOD VALLEY.

(d) The lines of deployment of the Brigade Support and Reserve battalions.

8. On the night previous to the assault troops will be moved into position as follows :—

As soon as darkness admits, a line of outposts will be pushed forward by 8th and 9th Inf. Brigades beyond the line of deployment of the assaulting battalions. Particular care must be taken that the outposts of each unit are in touch with the outposts of the units on their flanks. Covered by this line of outposts the assaulting Brigades will move across the open to their positions of assembly in CATERPILLAR WOOD VALLEY. From these positions they will move forward to their positions of deployment.

After deployment the assaulting battalions will lie down silently to wait for the hour of assault ; and the battalions in Brigade Support and Reserve will dig themselves in on their lines of deployment.

The G.O.C. 76th Inf. Brigade will dispose his troops as follows :—
2 Battalions on northern bank of CATERPILLAR WOOD VALLEY where they will dig themselves deep cover.

1 Battalion in MONTAUBAN ALLEY.

Remainder in old German trenches in rear of MONTAUBAN ALLEY.

76th Inf. Brigade will arrange that all battalions are in telephonic communication with Brigade H.Q. at the commencement of the operations.

The R.E. and Pioneers in Divisional Reserve will be disposed in the Valley immediately south of CARNOY under the orders of the O.C. 20th K.R.R.C. (Pioneers) who will remain at the Brigade H.Q. in CARNOY (A.13.b.9.0.) to receive orders.

All troops of the 8th and 9th Inf. Brigades must be north of the CATERPILLAR WOOD VALLEY by 12 midnight, at which hour the 2 battalions 76th Inf. Brigade may enter the Valley.

9. Brigadiers of the 8th and 9th Inf. Brigades will construct positions

in their areas south of CATERPILLAR WOOD VALLEY for the 4 machine guns detailed from their Brigades to hold the present trenches. The positions must be selected so as to sweep with direct fire the southern slopes of the ridge running west from LONGUEVAL Village.

10. All troops will wear "fighting kit". Surplus kit will be stacked under a guard under battalion arrangements.

11. Not more than 20 officers per battalion will go into action at the commencement. Officers to replace the Commanding Officer, Adjutant and Company Commanders of each battalion should be kept ready under cover near Brigade Battle H.Q.

12. The 8th and 9th Inf. Brigades will dispose their Brigade Reserve Battalions on the outer flank of their Brigades in order to be ready to assist the Divisions on our flanks, or to form defensive flanks for the Division as may be necessary.

13. All three Brigades will arrange to carry forward as many Stokes Mortars with ammunition as possible. These weapons will be especially useful for dealing with the Village and Wood of BAZENTIN-LE-GRAND.

14. Every Brigade will arrange to carry forward at least one telephone cable with each assaulting battalion. These lines will be connected with the Brigade Advanced Report Centres in CATERPILLAR WOOD VALLEY.

In addition each Brigade will arrange to establish visual signalling stations in or near the German trenches as soon as possible after they have been occupied to communicate with stations which will be established at S.26.d.9.6. and S.27.c.6.6.

Every Brigade, Battalion and Company will organize a service of runners.

3rd Division Signals will arrange a supply of pigeons to be carried forward with the battalion H.Q. of the assaulting battalions when the position is captured.

Wireless Stations will be established as follows :—

- (a) "P.L." station near 9th Inf. Brigade Battle H.Q.
- (b) "P.B." station about A.4.a.1.5.
- (c) "P.E.E." station about S.28.c.5.0.

15. Brigades and units will tell off special signallers to communicate with our aeroplanes. The aeroplanes told off to communicate with us have a broad black band painted under each lower plane and fly streamers from the end of both planes.

Flares will be burnt by the infantry when they have established themselves on the following lines :—

- (A) The German support line.
- (B) The track from road junction at N.E. corner of BAZENTIN-LE-GRAND WOOD—road junction S.15.a.9.9.—along road and hedges to S.16.b.7.7.
- (C) Strong point near S.10.d.9.2.
- (D) Strong point near road junction S.11.c.5.8.

Company and Platoon Commanders of leading Companies will take every opportunity of indicating changes of position to the aeroplanes should any further movements take place.

16. The assault will be preceded and covered by the fire of Heavy Artillery and of the Divisional Artillery of 3rd and 18th Divisions.

The right group of the 3rd Div. Artillery will cover the front of the left Brigade of the 9th Division as far east as the road running north and south from road junction S.11.d.0.8. to S.17.d.0.7. till "North Barrage" is reached. After this it will be at the disposal of G.O.C. 3rd Division.

Under cover of this bombardment the assaulting troops will creep forward to within charging distance of the enemy's defences. At "O" hour the infantry will deliver the assault.

The exact time table of the artillery programme is attached and will be communicated to all concerned. The Inf. must work strictly to the times laid down.

17. Red and Yellow flags have been issued to the Infantry to show their position to our artillery. These flags will be waved backwards and forwards in the most advanced line from time to time. The flags will never be stuck into the ground and left.

18. Overhead fire will be directed on the valley north of BAZENTIN-LE-GRAND Wood and Village by the 8 guns of the Brigade Machine Gun Companies detailed to garrison the present front line.

The necessary arrangements for carrying this out with safety to the assaulting troops will be made by Brigade M.G. Officers for their respective guns. At the time fixed for the assault this fire will cease.

19. Every endeavour will be made to avoid crowding in the captured position. Thinning out will be effected principally by pushing troops forward to the defensive line laid down in the third task of the 8th and 9th Infantry Brigades in paragraph 3.

20. Advanced Dressing Stations will be established in dugouts in the QUARRY at S.22.c.0.5., and at CARNOY.

21. Should any prisoners be captured they will be sent under Brigade escort to the Divisional Collecting Station at the road and trench junction at A.8.a.9.5., where they will be taken over by the A.P.M. 3rd Division. Brigade escorts will be as small as possible and will rejoin their units as soon as they have handed over their prisoners.

22. At the commencement of the operations headquarters will be established at the following places by 9 P.M. on July 14th.

Advanced Div. H.Q. and C.R.E.....F.24.c. Central.

H.Q. Div. ArtilleryF.30.c.2.8.

8th Inf. Bde.....Junction of BRESLAU ALLEY and

BACK LANE (A.2.d.9.5).

9th Inf. Bde.....THE LOOP (A.2.c.8.6).

76th Inf. Bde.....BRESLAU SUPPORT (A.8.b.2.8).

23. Watches will be synchronised from Div. H.Q. at 6.30 P.M. on July 18th and 12.30 A.M. on July 14th.

24. One regiment of the 2nd Indian Cavalry Division and 2 Sections of the 19th Motor Machine Gun Battery are at the disposal of the G.O.C. 3rd Division for the purpose of seizing and holding HIGH WOOD and the high ground to the east of it overlooking FLERS, and of pushing patrols towards EAUCOURT L'ABBAYE, LE SARS and MARTINPUICH, should the line be broken on a sufficiently wide front.

The Cavalry Regiment will be in a position of readiness in L.4.b. and L.5.a. north-east of BRAY, and 2 Sections, 19th Motor Machine

ARTILLERY TIME TABLE

Left Groups		Centre Group	Right Group of 18th Division only	Rates of fire 18 pr. Hows. : $\frac{1}{2}$ as fast.
-5'	18 pr. Hows.	Enemy's wire S.15.0.4 to S.15.d.0.8 Selected points in front & support trenches	Enemy's support line S.15.a.2.1 to S.15.b.5.6	$\left\{ \begin{array}{l} 4 \text{ rounds per gun per} \\ \text{min. for first 3 min.} \\ 6 \text{ rounds per gun per} \\ \text{min. last 2 minutes.} \end{array} \right.$
Zero hour	18 pr. Hows.	Support trench S.15.a.2.1 to S.15.b.0.1	ditto	
0.5'	18 pr. Hows.	S.15.a.3.4 to S.15.b.3.4 S.15.a.9.3 to S.15.b.3.3	S.15.a.3.4 to S.10.d.0.0 S.15.a.9.3 to S.15.b.3.3	$\left\{ \begin{array}{l} 3 \text{ rounds per gun per} \\ \text{min. to 0 hr. 20 mins.} \\ \text{Afterwards 1 round per} \\ \text{gun per minute.} \\ \text{Guns \& Hows. firing on} \\ \text{BAZENTIN will fire 2} \\ \text{rds. \& 1 rd. respectively} \\ \text{per min. from 0 hr. 5'} \\ \text{to 1 hr. 35 min.} \end{array} \right.$
{ 1 hr. 35'	18 pr. Hows.	S.15.a.3.6 to S.15.b.8.9 S.15.a.9.6 to S.15.b.5.6	S.15.a.3.6 to S.10.d.3.1 S.15.a.9.6 to S.15.b.5.6	
{ 1 hr. 40'	18 pr. Hows.	S.9.c.4.4 to S.9.d.8.4 ditto	S.9.c.4.4 to S.10.d.5.4 ditto	
onwards				

Batteries will fire shrapnel from -5 mins. to 0 hrs. 5 mins., after 0 hr. 5 mins. 25% H.E. will be used.
Orders for 40th Bde. R.F.A. from -5 to 1 hr. 30' will be issued by C.R.A. 9th Div.

13.7.16.

D. M. GRAHAM,
Major R.A.,
Bde. Major, 3rd Div. Arty.

Gun Battery in a position of readiness immediately west of the BRAY—CARNOY Road about L.5.a.1.7. The G.O.C. Indian Cavalry Brigade to which the Regiment belongs and the O.C. 19th Motor Machine Gun Battery will be at Advanced Divisional H.Q. by zero on July 14th.

25. The 1st Line Transport of the 76th Inf. Brigade will be parked clear of the road at L.5.a.2.7. at zero hour ready to hook in and move off in the event of the 76th Inf. Brigade being ordered to move forward in support of the Cavalry.

The Brigade Transport Officer will report at Advanced Divisional H.Q. at zero hour and await orders.

The C.R.A. will detail one battery of the 40th Brigade R.F.A. to move forward with the 76th Inf. Brigade. If the order to move forward is given an officer of the battery will report to 76th Inf. Brigade H.Q. at once for Liaison duties.

26. The 8th Inf. Brigade will arrange to cut ramps 12 feet wide down to the captured German trenches in two places for the passage of the Cavalry in such a way as not to block the passage-way in the trenches. The wire opposite these ramps will be cleared away by the infantry and the gaps clearly marked by flags.

H. S. DE BRETT,
Lieut.-Colonel,
General Staff, 3rd Division.

EXPLANATION OF ATTACHED TIME TABLE

The 3rd Division's front has been shortened. They will now attack on the front from S.15.c.1.4 to S.16.b.5.1, both points inclusive.

The 9th Division attack from S.16.b.5.1 eastwards.

The Infantry will be within 300 yards of front line before assaulting.

The Artillery commence shooting 5 minutes before the Infantry assault.

The Infantry assault at "Zero hour" and capture enemy's first line.

At 0 hours 5 minutes the Infantry assault and capture the support line from S.15.a.3.1 to S.16.b.6.4.

The object of the Howitz. from 0 hrs. 5 mins. to 1 hr. 35 mins. is to destroy BAZENTIN-LE-GRAND.

At 1.35 hours the Infantry begin to advance through village and to the line of road and hedge from X roads S.17.b.1.9½ to S.16.b.0.8.

The barrage from S.9.c.4.4 to S.10.d.5.4 will be known as "North Barrage".

The 40th Brigade R.F.A. are attached to the 9th Division till 1 hour 30 minutes after Zero; they then come under orders of C.R.A. 3rd Division and will stand by to help thicken the North Barrage from S.9.c.4.4 to S.10.d.5.4.

GENERAL SCHEME TO ACCOMPANY TIME TABLE

- 5 to Zero	{ 18-prs. on enemy's wire.
	{ 4.5's on selected points.
Zero to 0.5'	18 prs. & 4.5's on Support line.

0.5' to 1 hr. 35'	{	All 18 prs. 200 yards North of Support line.
	{	All 4.5's concentrated on BAZENTIN.
1 hr. 35' to 1 hr. 40'	}	All guns increase their range about 100 yards.
1 hr. 40' onwards	{	All guns and hows. lift to a line 200 yards North of the line along S. edge of squares S.9, 10.

THE SOMME, 14TH JULY 1916

8TH BRIGADE PRELIMINARY INSTRUCTIONS FOR ATTACK.¹

Sketch 10, 1. On a date which will be notified later the XIII. Corps will attack also the enemy's second line of defence from Waterlot Farm to Bazentin-le-Grand Village in conjunction with an attack of XV. Corps on Map 1 A. Bazentin-le-Grand Wood and Bazentin-le-Petit Wood. ("1916" Vol. I.).

2. The 3rd Division will attack and consolidate the enemy second line from Longueval—Montauban Road at S.17.central (exclusive) to S.18.a.2.1. and the village Bazentin-le-Grand.

3. Objective.

The 8th Brigade will capture and consolidate the enemy's front and support line from the communication trench at S.16.b.6.5. (inclusive) to the communication trench at S.15.b.4.1. inclusive and to keep touch with and assist the 76th Infantry Brigade on the right and 9th Infantry Brigade on its left.

4. Disposition.

The 8/East Yorks and 2 Stokes guns will capture and consolidate the enemy's front and support line from the C.T. at S.16.b.6.5. inclusive to a line running due N. from just W. of the Trench Junction at S.16.a.5.1. inclusive and will keep touch and assist the 76th Brigade on the right.

The 7/K.S.L.I. with 2 Stokes guns will capture and consolidate the enemy's front and support line from the above line exclusive to the C.T. S.15.b.4.1. inclusive and will keep touch with and assist 9th Brigade on the left.

Two companies 1/R.S. Fusiliers with 4 guns 8th M.G. Coy. and 4 Stokes guns will be in support along Sunken Road both sides of the cross-roads at S.16.c.1.4.

1/R.S. Fusiliers (less 2 Coys.) with 4 guns 8th M.G. Coy. and 1 Sect. Cheshire Field Coy. R.E. will be in Brigade Reserve.

2/Royal Scots will be in Divisional Reserve on the N. slope of the valley about S.22.a.0.0.

2 Sections 8th M.G. Coy. will remain in Montauban Alley and employ covering fire. Of these one section will form the trench garrison under O.C. 20/K.R.R. and one section will be ready to move forward to the objective when ordered to do so.

¹ Amended later. See Appendix 8.

8th Trench Mortar Battery will send 2 guns each with 8/East Yorks and 7/K.S.L.I. The remaining 4 guns will be with the support.

5. Pickets.

A line of pickets consisting of half a platoon from each company of the assaulting battalions with their scouts will be established along the line of deployment. These parties will be in the trench just W. of S.27.b.2.3. at 10 P.M. and will proceed to their covering position under the command of the Brigade Intelligence Officer. Under cover of this screen the Brigade will assemble and deploy for attack.

6. The position of the Assembly.

On the N. slopes of the valley about S.21.b.2½.2.—S.22.a.4.2. The head of the Right Coy. 8/East Yorks will be on the track at S.22.a.4.2. The head of the Right Coy. 7/K.S.L.I. just E. of and along side the track at S.21.b.8½.2.

7. Formation at position of Assembly.

Lines of Coys. in fours.

8/East Yorks at 80 and 7/K.S.L.I. at 100 yards interval.

Distance between leading and second platoon . 15 yards

 " " second and third platoon . . 50 "

 " " third and fourth platoon . . 15 "

Connecting files in between, and ground scouts on front and flanks.

Supports.

Two supporting Coys. of 1/R.S.Fus. will be in line of half companies at 100 yards interval and with 15 yards distance between platoons, the right half company of the Left Company being on the track at S.21.d.8.8. They will follow the 8/East Yorks and 7/K.S.L.I. at a distance of 100 yards.

The two Stokes guns will be with the rear platoons of each of the two centre columns and two machine guns in rear of each of the outer columns.

Reserve.

The Brigade Reserve will remain under shelter of the bank in column of fours—their head on the track at S.21.d.8.6. until the brigade advances, when they will form up in the same formation and place as the supports, but with only 50 yards instead of 100 yards interval between half company columns.

The 4 machine guns will be in rear of the two centre columns.

Section Cheshire Field Co. R.E. in four squads—one in rear of each column, see para. 15.

8. When each company has reached the position of Assembly and is ready to move forward it will send a representative with a watch (luminous, if possible) to the point where the railway crosses the track at S.21.d.8.6. where a time will be given when the advance is to commence.

The right company 7/K.S.L.I. will direct. Compass bearing will be 25 degrees. If a starlight night the clenched fist extended at arm's length to E. of N. star will give the direction.

9. The position of Deployment will be along the road which runs parallel to the German lines from S.15.d.5.3. to S.16.d.3.6. The leading platoons of each company will cross this road. Leading files

halt 40 yards N. of it and deploy. The second platoon will halt on the road and deploy.

Third platoon halt 80 yards in rear of the road and deploy.

Fourth platoon halt 40 yards in rear of third platoon and deploy.

All deployments will be to the right.

The supports will similarly deploy into two lines 100 yards in rear of the front line.

The Brigade Reserve will halt and deploy in two lines 100 yards in rear of the supports.

After deployment the assaulting battalions and supports will lie down silently to wait for the hour of assault.

Brigade Reserve will dig itself in on the line of its deployment which will be about S.22.a.0.7.

10. The Artillery Time Table, time and detail of the assault will be notified later.

When the assaulting battalions move forward the support will occupy the line of the road and be ready to fill gaps or assist the assaulting troops where required.

As soon as the position is carried the line will be thinned by pushing forward pickets to approximately the line of the road running east and west along the bottom of the square 9 and thence along the hedge north of the road in S.16.b.

The machine guns from the supports will be pushed up to the enemy support line and the line consolidated.

11. March to position of deployment.

The Carnoy—Montauban road is in 76th Brigade area and the 8th Brigade must be W. of that by 8 P.M.

8/East Yorks will move by Coys. to the part of Mine Alley between the road and the loop—to be clear of Carnoy village by 7.15 P.M.

7/K.S.L.I. will similarly move to that portion of Breslau Support and Bund Support which is west of the road, being clear of Carnoy by 7.30 P.M.

1/R.S. Fusiliers and one section Cheshire Field Co. R.E. will be about Mine Support and Mine Trench by 8 P.M.

The 2 sections 8th Machine Gun Company and 4 guns 8th Trench Mortar Battery which are to accompany the Brigade support and reserve will move up in daylight by trenches to that portion of Montauban Alley just S.W. of S.27.b.2.3., 8th Trench Mortar Battery leading, and will follow rear of 1/R.S. Fusiliers.

Units will be ready to move at 9.45 P.M.

50 yards distance between battalions.

Head of column not to cross Montauban—Mametz Road till 10.15 P.M.

Route. Clear of and along W. side of Montauban Road to point where new trench joins road and thence N. to b of Montauban. Cross trench by foot bridges which will be placed in position by Section Cheshire Field Coy. R.E.—thence N.E. behind Montauban Alley to point where it crosses road at S.27.b.2.3.—along trench which runs due north to railway—cross railway at S.21.d.1.3. and along under shelter of Valley Bank to position of deployment.

12. 2/Royal Scots in Divisional Reserve will keep in rear of this

column and assemble on the N. side of the valley about S.22.a.0.0. at 1 A.M. where they will entrench and await orders. Battalion H.Q. will be established at the Advanced Brigade Report Centre. Arrival of battalion to be reported to 3rd Division.

13. An advanced Brigade Report Centre will be established in the Quarry at S.21.d.9½.5.

From this the Brigade Signal Officer will arrange to carry forward at least 1 telephone cable with each battalion and will also arrange to establish visual signalling in or near the German trenches as soon as possible after they have been occupied to communicate with a station which will be established near the junction of East trench and Montauban Valley. The exact position will be notified later.

14. Units will tell off special signallers to communicate with our aeroplanes by lamp and groundsheet. The aeroplanes told off to communicate with us have a broad black band painted under each lower plane and fly streamers from the ends of both planes. Company and Platoon commanders of leading companies will take every opportunity to indicate changes of position to the aeroplanes.

Vigilant periscopes will be carried.

15. Working Parties.

Strong points in the captured trenches will be constructed as follows :—

By 8/East Yorks at Trench Junction S.16.b.3.6.

By 7/K.S.L.I. at Trench Junction S.16.a.3.4.

By a squad of 8 R.E. and 8 R. Scots Fusiliers each at—

S.16.b.5.2. S.16.a.8.3. S.16.a.2.0. S.15.d.3.9.

These men will be detailed from the companies of the Brigade Reserve and will carry 4 coils of French wire and 16 staples between them in addition to a pick and shovel each. They will join their R.E. squad before starting and each party will march in rear of its half company.

The 1/R.S. Fusiliers will also detail a party of 1 N.C.O. and 15 men to dig a communication trench from S.16.a.6.0. S.E. until cover can be obtained under the brow of the hill.

16. Carrying. Each man of the rear platoon of each company will carry a pick or a shovel in the proportion of 1 pick to 2 shovels. Wire cutters, billhooks and hedging gloves will be distributed among the leading 2 platoons of each company.

No envelopes, letters or papers will be carried which would give any information to the enemy.

Each man of the second platoon of each company of the assaulting and supporting battalions will carry two Stokes bombs which will be dumped by platoons on the road through S.15.d.—and S.16.c.

Dumps. Dumps of water, S.A.A., grenades, tools, sandbags and wire have been placed along the valley's bank in S.21.c.

Each assaulting battalion will arrange for a wiring party of 20 men with the 4th wave to carry French wire, staples and pickets.

1/R.S. Fusiliers will detail 32 men (4 per machine gun) to carry ammunition; to report to O.C. 8th Brigade Machine Gun Company at 2 P.M. on day before assault.

17. Distinguishing Marks.

Officers will wear during darkness a piece of white paper stuck

out of the left breast pocket. C.O. and Adjutant a piece of paper out of each breast pocket. Pockets will be closed after reaching the assaulting point.

Men with wire cutters will wear a white streamer on their right shoulder.

Runners will wear a white streamer from their packs and from top coat button.

R.E. will wear white streamers on both shoulders.

"A" Coy. of each battalion will wear a blue mark.

"B" " " " " " " green mark.

"C" " " " " " " red mark.

"D" " " " " " " yellow mark.

Each squad of bombers will have two yellow flags to show position reached when bombing down trench.

18. Kit. All troops will wear fighting kit. Officers will dress nearly as possible like the men. Surplus kit will be stacked under a guard under Battalion arrangements.

19. Not more than 20 officers per battalion will go into action with the battalion at the commencement. Officers to replace Commanding Officer, Adjutant and Coy. Commanders of each battalion and commander of Machine Gun Coy. and Trench Mortar Battery will be kept ready under cover near Brigade Battle H.Q. A.3.c.0.5.

20. Brigade Battle police posts of 1 N.C.O. and 3 men will be established by 2/Royal Scots at points S.21.d.2.6., S.22.c.2.8. where tracks lead into valley, and at point where road crosses trench S.27.b.2.3. They will collect any stragglers and reform them under cover.

21. Prisoners. Any prisoners captured will be handed over to 2 N.C.O.'s and 20 men detailed from 2/R. Scots at S.21.d.8.6. who will send them in small batches to Divisional collecting station at A.8.a.9.5. where they will be taken over by the A.P.M. 3rd Division.

22. The instructions laid down in F.S.R. Part I—operations para. 138, para. 1-2, will be thoroughly explained to all ranks before moving off.

Advanced Dressing Stations will be established in dug-out in Quarry at S.22.c.0.5.

E. H. KELLY,
Captain, Brigade-Major.
8th Infantry Brigade.

THE SOMME, 14TH JULY 1916

8TH BRIGADE FURTHER INSTRUCTIONS FOR ATTACK.

1. With reference to the preliminary instructions. The 3rd Division will attack with 8th and 9th Brigades in line and 76th Brigade in Divisional Reserve. Sketch 10,
also
Map 1 A
(" 1916 "
Vol. I.).

2. The Brigade frontage and objective remain as before—A Brigade of the 9th Division will be on our right.

3. (a) The whole of the 1/R.S. Fus. will be in support with 4 Stokes guns, 4 machine guns and 1 section Cheshire Field Co. R.E.

(b) They will advance from the position of assembly in line of companies in fours with 200 yards interval between inner companies and 80 yards interval between the inner and outer companies and keep 80 yards distance in rear of the assaulting battalions.

(c) One Stokes gun will be with the second platoon of each Coy.

(d) Two machine guns will be in rear of each of the outer Coys.

(e) The 4 squads of Cheshire Field Co. R.E. and R.S. Fus. for strong points will be with the two centre companies.

(f) On reaching the position of deployment which will be on a line 200 yards S. of the cross-roads at S.16.c.1.4., each platoon will deploy to the right on 80 yards frontage.

Distance between 1st and 2nd platoons . . .	25	yards
---	----	-------

" " 2nd and 3rd " . . .	50	"
-------------------------	----	---

" " 3rd and 4th " . . .	25	"
-------------------------	----	---

4. (a) The 2/Royal Scots with 4 machine guns will be in Brigade Reserve and will advance from the position of deployment on both sides of the road. Half battalion columns of fours at 50 yards interval.

(b) On reaching a point 400 yards S. of the cross roads, each half company will deploy outwards to one pace with distances between lines 50 yards. The whole will lie down at once and entrench.

(c) The 4 machine guns will be in rear of the battalion.

5. The Assault. After deployment the assaulting battalions keeping in their lines and distances will slowly work forward as close to their objective as our fire will admit and await the hour of assault.

The 1/R.S. Fus. after deploying will also move up till the 1st line is on the road running E. and W. through S.16.c.

At the hour of assault each line of the assaulting and supporting

battalions will move forward silently and in quick time. The companies of the 1/R.S. Fus. will assist the assaulting battalion if needed and will occupy and consolidate the German front line.

The 2/Royal Scots will remain entrenched on its line of deployment.

As soon as the position is carried the machine guns of the supports will move forward to the German support line. Pickets will not be pushed forward, but the German line consolidated and held. Every effort must be made to get adequate cover and men must work to their utmost capacity, as the enemy's bombardment will be very severe.

6. Each man of the rear half companies of the 2/Royal Scots will carry a pick or a shovel (1 pick to 2 shovels). The leading half companies of the rear two companies will carry boxes of S.A.A. from the valley. After reaching their position of deployment the 2/Royal Scots will detail a carrying party of 20 men to work backwards and forwards carrying S.A.A. and water up to their position.

7. 2/Royal Scots will detail 16 men (4 men per gun) to report to O.C. 8th M.G. Coy. in Montauban Alley at 8 p.m.

E. H. KELLY,
Captain, Brigade-Major.
8th Infantry Brigade.

13.7.16.

THE SOMME, 14TH JULY 1916

8TH BRIGADE OPERATION ORDER No. 48.

13th July 1916.

1. At 3.25 A.M. on 14th July the 8th Brigade will attack the German second line as laid down in the preliminary instructions issued. Sketch 10,
also

Maps showing the artillery barrages have been issued to bat-
talions. The exact times should be communicated to all concerned. Map 1 A.
" 1916 "
Vol. I.).
The infantry must work strictly to the times laid down.

2. The task allotted to the 8th Brigade is

i. 7/K.S.L.I. and 8/East Yorks to capture and consolidate the enemy's support trenches from Trench Junction S.16.b.6.5. inclusive to W. of Trench Junction S.15.b.5.1.

ii. 7/K.S.L.I. to assist 9th Brigade in the capture of Bazentin-le-Grand by protecting its right flank.

iii. 1/R.S. Fusiliers at 5.10 A.M. to establish a defensive line along the road and hedges from S.9.d.5.0.—S.16.b.7.7. and establish strong points about S.10.d.9.2 and near the Road Junction S.11.c.5.8.

2/Royal Scots will be prepared to form a defensive line to protect the right of the 3rd Division.

3. The 2/Royal Scots with 4 Machine Guns in Brigade Reserve will be in formation ordered but on the east side of the road S.21.d.8.7.—S.21.c.8.2. with the leading half companies 250 yards N. of the Railway.

4. Strong points will be constructed as laid down except that a company of Pioneers (20/K.R.R.C.) will strengthen the Rectangle S.16.b.6.5.—S.16.b.3.6.—S.16.b.2.3.—S.16.b.5.2. by making strong points at the corners and wiring.

The party 8/East Yorks will not be required to make the strong point at S.16.b.3.6. but will assist the Pioneers by carrying material.

7/K.S.L.I. will make strong points at S.15.b.5.2. and S.16.a.2.3. They will also make two ramps 12 feet wide at about 50 yards interval, just west of the road S.16.b.1.3. to allow cavalry to pass.

1/R.S. Fusiliers will make two similar ramps W. of the road at S.16.a.0.0. and clear the wire and mark the gaps.

5. Visual station has been established at S.27.c.6.6.

6. Flares for communicating with aeroplanes will be burned by the infantry when they have established themselves on the following line :—

(a) German support line.

(b) The track from Road Junction at N.E. corner of Bazentin-le-

Grand Wood—Road Junction S.15.a.9.9.—Along road hedges to S.16.b.7.7.

(c) Strong points near S.10.d.9.2.

(d) Strong point near Road Junction S.11.c.5.8.

Company and platoon commanders of leading Coys. will take every opportunity of indicating changes of position to the aeroplanes should any further movement take place.

7. Red and yellow flags have been issued to the infantry to show their position to our artillery. These flags will be waved backwards and forwards in the most advanced line from time to time. The flags will never be stuck into the ground and left.

8. Watches will be synchronised from Signals before moving off.

E. H. KELLY,
Captain, Brigade-Major.
8th Infantry Brigade.

THE SOMME, 14TH JULY 1916
INSTRUCTIONS TO BR.-GENERAL C. L.
GREGORY, COMMANDING ADVANCED
GUARD, 2ND INDIAN CAVALRY DIVISION.

1. If a chance occurs for the cavalry to advance your tasks will be **Sketch A.**
 - (a) To co-operate with the infantry of the XIII. and XV. Corps in the attainment of their second objective, or in any other way. As regards this you will receive instructions, when the time comes, from G.O.'s C. the Corps concerned.
 - (b) To act as an Advanced Guard to the division whose objective, if ordered to advance, will probably be the line Flers—Le Sars. In either case your first care should be to secure High Wood or a position masking that place.
 2. Both XIII. and XV. Corps are entitled to call upon you for co-operation. In deciding as to how much of your force to employ in one direction you will bear in mind
 - (a) The possibilities of being required to assist the other Corps.
 - (b) Your second rôle of Advanced Guard to this Division if ordered to advance.

You need not, however, consider yourself as tied down to the Advanced Guard rôle, as the G.O.C. is prepared, if necessary, to detail a fresh Advanced Guard.
 3. Orders will be sent to you at Headquarters 3rd Division (L.16. central)¹ where you or one of your Staff Officers should be continuously after 8.30 A.M.
 4. (a) Lieut.-Colonel Lamont, R.H.A., will accompany you as Artillery Liaison Officer.
 - (b) Other liaison officers will be detailed as follows :
 - Major Mort, 8th Hussars—9th Division
 - „ Adams, 20th Deccan Horse—7th Division
 - „ Caldwell, Royal Canadian Dragoons—18th Division.These officers will each have a motor cyclist and two mounted despatch riders and will report direct to you.

You will forward their reports to this headquarters. A motor cyclist will be attached to you for that purpose from the Signal Squadron, but you must use your own as well.
- R. G. HOWARD VYSE,
Lieut.-Colonel, G.S.,
2nd Indian Cavalry Division

¹ 500 yards E. of Bray.

THE SOMME, 1916

G.H.Q. FORECAST OF PROBABLE FUTURE ACTION, 15TH JULY

Third Army.
O.A.D. 68.

Sketch A. 1. When the Fourth Army has secured the approximate line Ginchy—Flers—Le Sars the Reserve Army will be directed to attack northwards from the Ancre valley. The Reserve Army will then be advancing from the south against the enemy on the front of the Third Army.

2. As soon as heavy artillery can be released from the Fourth Army it will be transferred to the Third Army, in order to enable you to co-operate in the advance of the Reserve Army by active counter-battery work against the German artillery opposing the advance, and by enfilading any positions which the enemy may take up in the resulting battle.

3. You should consider at once, and work out in detail, the disposition and employment of the additional artillery resources mentioned in para. 5 which may be placed at your disposal for this purpose. In making these dispositions you should bear in mind the fact that the fighting on the Reserve Army front may trend north-eastwards and that you may be called on to undertake counter-battery work at very long ranges. It is therefore essential that guns detailed for this task should be established as close as possible to your front line.

4. An offensive opposite Blaireville [$5\frac{1}{2}$ miles S.S.W. of Arras] is still a possible contingency and you should have an artillery scheme worked out in anticipation, but you must be prepared to concentrate the bulk of all your artillery, including the resources mentioned below, on the southern portion of your front.

5. The possible reinforcements to your Army are:—

Heavy artillery groups	4
4.7" guns	2 batteries
60-pdr. guns	5 "
6" guns	$1\frac{1}{2}$ batteries
6" Hows.	8 "
8" Hows.	3 "
9.2" Hows.	6 "

12" on railway mounting or	.	.	4	} guns
15"	.	.	2	
French 220 mm.	.	.	.	4 batteries
„ 120 L.	.	.	.	6 „

Advd. G.H.Q.,
 15th July, 1916.
 Copies to :—Fourth Army
 Reserve Army.

L. E. KIGGELL,
 Lieut.-General,
 Chief of the General Staff.

THE SOMME, 1916

APPRECIATION OF THE SITUATION BY THE COMMANDER OF THE FOURTH ARMY, 24TH JULY.

Sketches 1. From the information supplied by the Intelligence Dept.,
A, 23. G.H.Q., and from the evidence on other Army fronts, it appears
that the enemy is milking his line freely, and may be concentrating
large reinforcements in front of the Fourth Army.

It is desirable, therefore, to consider what use he might make of
these reinforcements, should they be troops capable of undertaking
offensive operations.

2. Looking at the problem from the point of view of the enemy,
it appears to me that his best chance of obtaining a decisive success
would be to employ what fresh troops he has against the front
Longueval—Trônes Wood, and for the following reasons :—

- (1) The facilities for massing a large force of artillery to bring fire
to bear on these objectives are good. From Flers through
Les Boeufs, Morval, and Combles, there are suitably concealed
positions for a large number of guns, and the observation
which the enemy can obtain from the high ground between
Flers and Leuze Wood is fair.
- (2) The approaches to Delville Wood from Flers to Ginchy from
the east are covered from view, so that he might be able to
assemble large forces at these points without our detecting it.
- (3) The capture of Longueval and Trônes Wood would open the
way to Montauban, the capture of which latter place would
seriously threaten the positions of all troops to the north as
far as Bazentin-Le-Petit inclusive.
- (4) Such an offensive, if undertaken in conjunction with a
counter-attack against the French at Hardecourt, would be
attractive to the enemy as striking at the junction between
the Allied Forces—always a tender spot.

3. To undertake such an offensive with any chance of success,
he would, in my opinion, require at least three fresh divisions.

Air reconnaissances carried out today over Flers, Morval and
Combles, together with information received from the Corps holding
this front, do not indicate any abnormal concentration of the enemy's
forces in this neighbourhood, but it is as well to consider, should such
a counter-attack take place, how it would be best to meet it.

4. The line the XIII. Corps is now holding, except, perhaps, in the village of Longueval itself, is very strong. The second line is about to be constructed behind the spur which runs south of Longueval to S.23. central [northern slope of Caterpillar Valley], and this line will be joined up to the Trônes Wood defences on the one hand, and to the north-east corner of Bernafay Wood on the other. Steps are likewise being taken to double our front line trenches and generally strengthen all defensive measures.

5. The main principle which I propose to adopt, in the event of such an attack meeting with any degree of success, will be to dispute every yard of ground with the XIII. Corps, and to mass the reserves of the XV. Corps in the neighbourhood of Bazentin-le-Grand Wood, with the object of delivering a decisive counter-stroke, with not less than three fresh brigades, along the ridge in S.16. central [i.e. due E. from Bazentin-le-Grand] against Longueval and Delville Wood.

6. With this object in view, the artillery of the XIII. and XV. Corps will make arrangements to bring the maximum number of guns to bear on these objectives in case of emergency.

7. All Corps, and especially the XIII. Corps, should set to work at once to construct strong points not only close in rear of the line they are now holding, but also some thousand yards or more behind that line. These points to be covered, as far as possible, from distant observation, to be wired all round, and to be held permanently by garrisons of one or two platoons. The value of these strong points, in order to stop an enemy successful offensive, and to enable counter-attacks to be speedily delivered, cannot be over-estimated.

8. In order to deal satisfactorily with the present situation, it is essential that all Corps should devote their utmost energies to consolidating the positions they now hold, in pushing forward patrols and strong points to their front, and in taking every possible step to improve our observation of the hostile defences.

9. The situation at Longueval must be cleared up with the least possible delay. The XIII. and XV. Corps, in conjunction, should take steps to gain possession of the northern end of the village of Longueval and the north-western portion of Delville Wood. The XIII. Corps to undertake the capture of Guillemont and Falfemont Farm, in conjunction with the French offensive against Maurepas, while the XV. Corps increase their holding in High Wood by the capture of the strong points at the eastern and western corners. The III. Corps should devote their attention to gaining possession of Munster Alley and the portion of the switch line trench to the east of it, and joining that up to the line of trench they now hold north of Bazentin-Le-Petit.

10. In order to support these attacks the artillery of the various Corps should work in unison and assist each other, not only in capturing these objectives, but also in establishing an overwhelming barrage should the enemy attempt a serious counter-stroke.

THE SOMME, 1916

THE COMMANDER-IN-CHIEF'S INSTRUCTIONS TO THE FOURTH AND RESERVE ARMIES, 2ND AUGUST.

O.A.D. 91.

1. I am directed by the Commander-in-Chief to confirm the verbal instructions he has already given you as to the general principles on which your action should be based in dealing with the existing situation.

2. Those instructions are as follows :—

(a) Our offensive is to be continued in close co-operation with the French. The methods adopted, however, must be suited to the situation as it exists for the time being.

(b) The present situation is that the enemy has brought up considerable reinforcements of men and guns, and can continue for some time still to replace tired troops. He has also strengthened, and continues to strengthen his positions ; and he has recovered to a great extent from the disorganization caused by the success of the allied attacks last month. In consequence, although most of his troops in our front have been severely handled and must be somewhat tired, they are still too formidable to be rushed without careful and methodical preparation ; and they may even prove capable of developing strong and well organized counter-attacks, prepared and supported by the heaviest artillery fire that the enemy can develop.

We have therefore two needs to meet, viz. :—

- (i) preparation for the delivery of fresh attacks, combined with—
- (ii) strengthening our positions against the danger of counter-attacks on a formidable scale. Provided we have done all we can to be ready for them such counter-attacks should cost the enemy dear without attaining their object.

(c) To enable us to bring the present operations (the existing phase of which may be regarded as a “wearing out” battle) to a successful termination, we must practise such economy of men and material as will ensure our having the “last reserves” at our disposal when the crisis of the fight is reached, which may—and probably will—not be sooner than the last half of September.

3. To meet the situation as outlined in the preceding paragraph the Commander-in-Chief has decided that in order to secure the whole

of the MORVAL—THIEPVAL ridge as a basis for further operations, while at the same time wearing down the enemy's strength :—

- (i) The first necessity at the moment is to help the French forward on our right flank. For this we must capture GUILLEMONT, FALFEMONT FARM, and GINCHY as soon as possible. These places cannot be taken, however—with due regard to economy of the means available—without careful and methodical preparation. The necessary preparations must be pushed on without delay, and the attack will be launched when the responsible Commanders on the spot are satisfied that everything possible has been done to ensure success. Sketch 24.
- (ii) While pushing on preparations for the attack on the places mentioned in (i) no serious attack is to be made on the front now held by the XV. and III. Corps (extending from DELVILLE WOOD to "MUNSTER ALLEY"). Preparations for a subsequent attack on this front must, however, be carried on with energy and method by pushing forward sap heads and connecting them up, capturing important posts held by the enemy within easy reach, and, generally, by such procedure as will enable us, with due regard to the local conditions, and to a wise economy of men and munitions, to secure the ground we have gained against counter-attack and to place ourselves in a good position for the resumption of the offensive there when the time for it arrives. The decision as to when a serious offensive is to be undertaken on this front is reserved by the Commander-in-Chief.
- (iii) For the present, operations west of MUNSTER ALLEY will be restricted to careful and methodical progress designed to gain possession of WINDMILL HILL above POZIERES, of the enemy's main second line trenches running thence north-westward to about MOUQUET FARM, and of the enemy's trenches on the spur between MOUQUET FARM and OVILLERS-LA-BOISSELLE. Each step in this progression must be thoroughly prepared, and no attack is to be made unless and until its success has been assured so far as forethought and careful preparation can do so. Sketch 29.
- (iv) The operations outlined above are to be carried out with as little expenditure of fresh troops and of munitions as circumstances will admit of, but in each attack a sufficient force must be employed to make success as certain as possible, and to secure the objectives won against counter-attack. Economy of men and munitions is to be sought for, not by employing insufficient force for the object in view but by a careful selection of objectives.
- (v) Every effort must be made to give fresh troops brought into reserve as much training as may be possible before they are thrown into the battle.
- (vi) After GUILLEMONT, GINCHY, and FALFEMONT FARM have been captured further operations will depend on the situation then resulting. It is probable, however, that they will be directed at first eastwards towards LEUZE WOOD, BOULEAUX WOOD and MORVAL (in co-operation with a French advance towards SAILLY-SAILLISEL), and north-westward along the THIEPVAL SPUR; and that an advance towards BAPAUME, Sketch 23.

as well as operations north of the ANCRE, will be deferred until THIERVAL and MORVAL have been secured.

4. Subject to the above general policy, it is not intended that the initiative of Army Commanders should be curtailed as regards choice of methods or in undertaking minor operations in furtherance of the general plan.

5. On the fronts of the First, Second and Third Armies, efforts are to be continued, within the means at the disposal of the Commanders, to hold the enemy to his positions and to cause him loss.

Advd. G.H.Q.
2nd August, 1916.

L. E. KIGGELL,
Lieut.-General,
Chief of the General Staff.

THE SOMME, 1916
TACTICAL MEMORANDA CIRCULATED BY
G.O.C. XIV. CORPS.

S.72

Without wishing in any way to curb the initiative of Divisional Commanders, I should like to impress the following short memoranda on the minds of all, which are based on the experience of this battle, backed by the teaching of our text books—

1. All attacks must be in depth of units so as to keep order and control as long as possible—
Subordinate Commanders are responsible for maintenance of order in their formations—
Brigadiers for the direction and engagement of their echelons behind the assaulting line—
Divisional Commanders for ensuring at any instant the co-operation of his Artillery and Infantry.
2. We are still fighting against prepared positions—These or selected parts of them are first destroyed and broken by our Heavy Artillery, which also has the effect of driving the enemy and his machine guns into deep dugouts, but this is not enough to enable infantry to advance without heavy losses—and the only way to do this, is methodical progression from point to point, right underneath the protection of our 18 pounders firing shrapnel.
3. It has been the experience of many Brigadiers that the first waves of Infantry must seize, clear and hold the first trench—otherwise the enemy get up and shoot the first waves in the back—then, knowing this cannot happen the second echelons can cross the first trench and advance still under cover of our own shrapnel to the support trench—Sentries are wanted for every dugout and care taken that prisoners do not overwhelm their escort and outnumber the attackers as has happened recently. If prisoners will not come out of the dugouts the P. bomb is the weapon to throw down.
Every corner must be searched for dugout entrances and tunnels. In many cases our Infantry have successfully crawled up to within 25 yards of the bursts of our own shrapnel, before rising up for the last rush—
4. The most difficult point of all, is how to cross No MAN'S LAND once the enemy has got the alarm and put his barrage on—

In my opinion this can only be done :

- (i) by tunnelled trenches and by very rapid digging by parties specially detailed who should begin work at the same second as the assault carries the first trench—
- (ii) by getting as many men across as possible while the element of surprise lasts. On the Tunnellers and diggers depend not only the supply of the attackers with food, water, bombs and ammunition, but the flow of reinforcements and the whole continued progress of the fight—

Once masters of the German first trench we have their communications for further progress, but until ours are made across NO MAN'S LAND the bravest and most successful assault cannot be definitely considered successful.

I therefore appeal to all Divisional Commanders to make this point paramount in their preparations all along the line.

5. Every advance except the first assault should be preceded by Battle patrols to avoid "fire surprise".
6. Communications by runners, pigeons, visual and signal to the air—Runners should have special armbands, to save any mistake of shirking of duty, if stopped when running to the rear.—In several instances pigeons have proved the only means of communication.
7. If a captured trench is being shelled it is useless to reinforce that trench, unless
 - (i) A further immediate advance is contemplated.
 - (ii) An enemy counter-attack is expected.
8. The first assaulting line cannot be equipped too lightly—

50 rounds S.A.A.	{	have been found to meet all requirements.	
4 to 6 bombs.			
Haversack with rations.			
Waterbottle full.			
		Rifle and bayonet.	

CAVAN,
 Lieutenant-General,
 Commanding XIV. Corps.

3rd August 1916.

THE SOMME 1916

THE FIRST G.H.Q. INSTRUCTION REGARD-
ING THE EMPLOYMENT OF TANKS.

Fourth Army
Reserve Army
O.A.D. 111.

1. A number of "tanks" (i.e., cars of the "Heavy Section" Armoured Cars) is expected to arrive during the next few weeks from England and it is hoped to make use of 50 to 60 of these about the middle of September in connection with offensive operations on a large scale.

2. The attached paper (marked "B") is issued giving some description of the "tanks" and the possible means of employment tactically. The "tanks" on arrival will be concentrated at first at St. Riquier training camp. Army and Corps Commanders should study these weapons on the ground, so that they can adapt their plans for using them to the best advantage. Information will be given to Armies when any combined exercise with infantry and "tanks" will take place at St. Riquier.

3. As the time is short it is of paramount importance that Army and Corps Commanders should study the use of these "tanks" with the actual problem which will confront them on the ground. For this purpose the following forecast of operations is given

- (a) The Fourth Army might be called upon to attack from a Sketch 31. front Leuze Wood, inclusive—Ginchy—Delville Wood and High Wood to Munster Alley [left boundary of Army] inclusive. The objective would be the enemy's third-line system from Morval, inclusive, to Le Sars, inclusive, and possibly the German gun positions beyond.
- (b) The Reserve Army might be called upon to attack from a front Munster Alley, exclusive, to the River Ancre, with a view to securing the German third-line system from Le Sars, exclusive, to Pys, and thence form a defensive flank along the River Ancre.
- (c) The troops to be placed at the disposal of the Fourth and Reserve Armies, their training areas and periods of training have already been notified to those Armies—see paper "A" attached.
- (d) It is hoped that the following "tanks" will be available :—

For Fourth Army	36 to 42.
For Reserve Army	18 to 24.

4. The following points require consideration in the use of the " tanks " :—

- (a) Assembly places under cover. These should not be difficult to find behind the ridge we at present occupy.
- (b) Their use with infantry. It will be necessary to specially train the divisions who may be earmarked to work with the " tanks ".
- (c) Although the recommendation is that the " tanks " should be 100 to 150 yards apart, it may probably suffice, in view of the nature of the German defences opposite us, to use these " tanks " at a wider interval, from 200 to 250 yards apart.
- (d) One section of " tanks " would thus appear to be a suitable distribution for an infantry division covering 1,200 to 1,500 yards of front.
- (e) The infantry will have to work close behind the " tanks ", occupying, clearing out, and consolidating successive positions soon after these have been reached by the " tanks ". Some tanks might be required to work with the infantry in clearing up strongpoints overrun by the leading tanks and troops.
- (f) The working of our artillery barrage in conjunction with the " tanks " will require careful consideration.

5. It is for consideration whether the " tanks " could not move a short distance in the darkness, say as far as the Switch Line where that line is close to our front line. They would then move forward to the German third line in the grey dawn.

The objectives of the " tanks " must be clearly stated and as simple as possible, as it is difficult for the " tanks " to manœuvre.

Adv. G.H.Q.
16th August, 1916.

L. E. KIGGELL,
Lieut.-General,
Chief of the General Staff.

PROPOSED TRAINING PROGRAMME.

Army.	Unit.	Area in which training takes place.	Approximate dates.
Fourth Fourth Fourth	Guards Division } 6th Division } 20th Division }	XIV Corps area	Under arrangements by Fourth Army
Fourth	47th Division	St. Riquier. (Supervised by Fourth Army)	5th-16th August. Artillery moves to Fourth Army on 10th August
Fourth	50th Division	Fourth Army. (III Corps training area)	16th August-4th September
Fourth	56th Division	St. Riquier area. (Supervised by Fourth Army)	24th August-1st September. Moves to area 6, 2nd September
Fourth	N.Z. Division	Fourth Army (No. 5 area)	23rd August-1st September
Fourth	41st Division	Fourth Army (No. 6 and C areas)	25th August-8th September
Reserve	39th Division	Monchy-Breton. (Third Army area)	13th August-23rd August. Marches to Frevent area on 24th August
Reserve	11th Division	Third Army (Le Cauroy) area	25th August-2nd September. To Reserve Army on 3rd September
Reserve	18th Division	Monchy-Breton (Third Army area)	26th August-6th September
Reserve	1st Canadian Division	Second Army area	11th-25th August
Reserve	2nd Canadian Division	Second Army area	26th August-3rd September. (Includes 2 days marching)
Reserve	3rd Canadian Division	Second Army area	30th August-7th September. (Includes 2 days marching)

15th August, 1916.

NOTES ON TANK ORGANIZATION AND EQUIPMENT.

1. The unit consists of :—

Headquarters,	
6 Companies,	
Quartermaster's Establishment	} One for each
Workshops	} Two Companies.

(a) Headquarters—

The Officer Commanding Heavy Section will be directly under the General Staff at General Headquarters.

His position in relation to the Heavy Section will be analogous to that of the Officer Commanding Special Brigade, in relation to the Special Battalions.

His responsibilities include :—

(a) The general control and supervision of the whole unit :

(b) Co-operation with commanders of formations concerned regarding all details connected with the employment of the unit :

(c) Arrangements with formations and departments for the maintenance of such portions of the unit as may be detached, for the provision of special stores, and for the replacement of casualties.

(b) Companies—

Each Company consists of a Headquarters and four Sections comprising six " Tanks " each, with one spare " Tank " per Company.

The establishment of a Company is 28 officers and 255 other ranks, including spare crews.

The " Tanks " are divided into two categories :—

(a) The " Male " carrying 2 6-pounder guns and 4 Hotchkiss guns ;

(b) The " Female " carrying 5 Vickers Machine guns and 1 Hotchkiss gun.

Sections are composed of three " Male " and three " Female Tanks ", and are sub-divided into Sub-sections containing one " Male " and one " Female " each.

Each Section has an establishment of 6 officers and 43 other ranks, the crew of each " Tank " being 1 officer and 7 other ranks.

(c) Quartermaster's Establishment—

(d) Workshop—

A Quartermaster's Establishment and a Workshop, composed of 1 officer and 4 other ranks, and 3 officers and 50 other ranks respectively, is provided for each two companies. These are immobile units and should be located in the vicinity of a railway. The Workshop cannot be sub-divided.

2. Ammunition—

The following is the approximate number of rounds carried in the " Tanks " :

- (a) "Male" — 160 rounds per 6-pounder gun ;
1,500 rounds per Hotchkiss gun ;
- (b) "Female" — 4,800 rounds per Vickers Machine gun ;
3,000 rounds per Hotchkiss gun.

3. Allotment to Formations—

Portions of the Heavy Section will be allotted to Armies for active operations in the same manner as portions of the Special Brigade are now allotted. Units so allotted will be administered, as far as ordinary requirements are concerned, by the formation to which they are attached for fighting.

4. Supply of technical stores—

The following arrangements have been made for the supply of special stores and spare parts, excluding ammunition.

A new section of the Ordnance Department is being formed at Havre to deal with stores peculiar to the Heavy Section.

The Officer Commanding Workshop, with which the Quartermaster's Establishment should be located, will demand such stores through the Ordnance officer of the formation to which he is attached in the usual way, and will form an advanced depot of these stores for these units. He will be responsible for keeping the two Companies provided with such special stores as they may require.

The replacement of guns and machine guns, and provision of spare parts for the same, will be arranged for in the same manner.

Under normal circumstances a machine which requires repair will have to go back to the Workshop. If, however, a machine is so badly damaged as to be unable to move, it might be possible to send a party from the Workshop to patch it up.

5. Ammunition Supply—

The Officer Commanding the Corps Ammunition Park will be responsible for the supply of ammunition to the "Tanks" working in the Corps area, and will provide such lorries as may be necessary. These lorries will feed direct to the "Tanks" or to dumps from which the "Tanks" will pick up ammunition.

When "Tanks" are transferred to another Corps the Officer Commanding the Corps Ammunition Park which fed the dump will be responsible for emptying it.

6. General Remarks—

The chief attributes of the tank are its power of crossing obstacles, its fire power, its momentum, and its invulnerability against shrapnel and small-arms fire. Its chief weakness is its liability to be knocked out by artillery or heavy trench mortars.

The machine weighs 28 tons. Its speed is from 4-5 miles per hour on the level, or 2 miles per hour when climbing or on very rough ground. It can reverse. It can surmount a revetted parapet 5 feet high and cross a gap 10 feet wide. Wire entanglements, hedges, walls, etc., do not interfere with its progress. It can push down and pass over single trees up to 18-inches in diameter, and can traverse an ordinary fir plantation or coppice of young trees. In close woods, however, there is considerable risks of the sponsons and guns coming in contact with trees and being wrenched off.

A photograph of the tank is attached.¹ All tanks are being

¹ See Frontispiece of Text.

"camouflaged" to render them as inconspicuous as possible. Efforts are being made to instal means of signalling to tanks, but it is doubtful how far these will prove efficient.

Issued by General Staff,
General Headquarters.
August, 1916.

PRELIMINARY NOTES ON TACTICAL EMPLOYMENT OF TANKS. (Provisional.)

1. The object of the tank is to help the infantry forward, and especially to deal with the enemy machine guns.

The original conception of the employment of these machines was the advance of large numbers in line at 100 yds. to 150 yds. interval, closely followed by infantry. This implies an approach march and deployment under cover, a surprise start, accurate keeping of alignment and direction, and a suitable objective, such as parallel lines of trenches in open country; these considerations, combined with the extent and regularity of the target offered to the enemy's artillery, render this a difficult operation.

2. A tank cannot, except at great risk, cross a heavy barrage of H.E. or gas shells, and it cannot lie out in the open under shell fire. Its safety lies in surprise, in rapid movement, and in getting to close quarters. It must emerge from cover (either material cover, or the cover of smoke or darkness), and it must return to cover, or find other concealment or safety when its task is done. Also it must have the infantry with it. These considerations limit its employment, unless we are prepared to risk the loss of all the tanks by pushing them as far forward as they can go, if possible, right through to the enemy's gun positions.

3. The method of employment described in para. 2 entails this risk, and also requires that a large number of tanks should be available. As probably only small numbers will be available in the first instance, and as it may be required to use them as they arrive, it is necessary to consider how they can be employed under these conditions.

4. The chief obstacles to any infantry advance are the villages, woods, strong points and hidden machine-gun positions. No bombardment seems to succeed in obliterating these places so completely as to prevent the re-appearance of machine guns there as soon as the artillery lifts. The result is that the assault is checked in front of these points and that those elements who continue to advance through the intervals are taken in flank by machine-gun fire.

What is wanted, therefore, is a means of applying extra weight against these strong places, so that they may be overcome simultaneously with the other parts where the resistance is less. This weight cannot be applied by throwing in more infantry, as there is a limit to the density in which infantry can be used. The tank is designed to afford a solution to the difficulty.

Within the limits of the objective given to an attack it is generally possible to pick out the points from which the greatest resistance is

to be expected. An allotted number of tanks should be told off to deal with each of these pivots of defence. They should be closely supported by bodies of infantry told off for the purpose, who will advance under cover of the tanks, clear up behind them, and eventually consolidate the locality when taken. In the case of a village or a wood the tanks may find sufficient cover to enable them to remain and help to hold the position. If not, they would either go on to a further objective, or go back, according to their original orders.

Each tank attack will be a definite operation against a limited objective allotted to a selected number of tanks and a selected body of infantry, all under one Commander. In certain cases a pair of tanks supported by a platoon might suffice. Whenever tanks are employed, special attention must be paid to counter-battery work, and the tank should move under cover of a close barrage, which should not lift from the objective until the tanks are close to it. Whether the tanks should deal only with the perimeter of the objective, or penetrate into it, depends on circumstances, but their primary task will consist in preventing the locality with which they have to deal from interfering with the progress of the main infantry attack.

5. The tanks can move across country by night, but over unknown country it must be light enough for the driver to see where he is going. Inside our own lines they can be assembled in complete darkness by following a guide with a small light or luminous disc.

6. There are also several purposes for which individual tanks may prove useful ; for taking up stores, for hauling guns over trenches, for clearing up behind the leading lines of infantry, for removing captured guns, for destroying obstacles, and possibly for reconnaissance. The closer the country, the more useful the individual tank is likely to prove.

7. Finally, occasions may arise when the 6-pdr. tanks could be used as light mobile artillery in close support of the infantry during the final stages of a successful advance, until such time as field artillery can be brought up.

8. There are, therefore, 4 ways in which tanks may be employed :—

- (a) The advance in line in large numbers ;
- (b) The attack in groups, or pairs, against selected objectives ;
- (c) Employment singly, or in pairs, for special purposes ;
- (d) Employment as mobile light artillery.

9. The tank is a novel engine of war, and untried. Its use will require careful study and preparation on each separate occasion. Special care must be taken that the tanks do not fall into the enemy's hands.

It must be clearly understood that one or more tanks by themselves cannot capture any hostile trench or position. As indicated in para. 4 above, every attack by tanks must be combined with an infantry attack, and it will be the special duty of that infantry to co-operate closely with the tanks, and to take special care that the tanks do not fall into the enemy's hands.

Issued by General Staff,
General Headquarters.
August, 1916.

THE SOMME, 1916

G.H.Q. PLAN FOR A MID-SEPTEMBER OFFENSIVE.

Fourth Army
Reserve Army
O.A.D. 116.

1. On the 21st June a memorandum (O.A.D. 17) was issued explaining the general scope and object of the main operations north of the Somme.¹ In principle these remain the same.

Sketch 31. 2. On the 14th instant O.A.D. 108, addressed to the Fourth Army, and on the 15th instant O.A.D. 112, addressed to the Reserve Army, laid down the general course to be followed in the operations now in progress which have the object of securing the high ground about Leuze Wood, Bouleaux Wood, Ginchy, High Wood, the high ground N.E. of Pozières, and the high ground N.E. of Thiepval. These operations will be continued with the object of establishing a good position on the general line thus indicated as a basis for a further offensive.

3. From the general line so established the Commander-in-Chief intends to deliver a strong attack about the middle of September. This attack will be made with fresh forces and all available resources (including "tanks") with the object of delivering a blow to the enemy south of the Ancre which, if successful, will enable the latter portion of the plan of operations detailed in the memorandum referred to in para. 1 to be put into execution.

4. The general plan of the attack projected for the middle of September will be to establish a defensive flank on the high ground south of the Ancre, north of the Albert—Bapaume road, and to press the main attack south of the Albert—Bapaume road with the object of securing the enemy's last line of prepared defences between Morval and Le Sars, with a view to opening the way for the cavalry.

5. The Fourth Army will attack from the Combles valley (junction with the French) to the Pozières—Bapaume road, inclusive, with a view to breaking the enemy's defences between Morval and Le Sars.

The Reserve Army will attack Courcellette and the high ground N.E. of Thiepval if not already captured with the object of

¹ See Appendix 15, "1916", Vol. I.

forming a defensive flank between Le Sars and the Ancre about St. Pierre Divion in order to secure the left flank of the Fourth Army.

6. In order to secure the last line of the enemy's defences between Morval and Le Sars it is the intention of the Commander-in-Chief to allot the " tanks " to the Fourth Army up to the number of 50 (two companies) which, it is anticipated, will be available for this operation. Should more " tanks " be available, it is probable that one or more sections will be allotted to the Reserve Army.

7. General Officers Commanding Fourth and Reserve Armies will submit their proposals for the execution of the operations detailed in paragraph 5 to Adv. G.H.Q. by August 28th. The plans of attack should state in detail how it is proposed to employ the " tanks ".

Adv. G.H.Q.
19th August, 1916.

R. BUTLER,
M.G. for
Lieut.-General,
Chief of the General Staff.

EXTRACT FROM THE RIGHT HON. WINSTON S.
CHURCHILL'S

MEMORANDA ON VARIANTS
OF THE OFFENSIVE,
7TH JANUARY 1916.

3. Caterpillars.

The cutting of the enemy's wire and the general domination of his firing-line can be effected by engines of this character. About seventy are now nearing completion in England, and should be inspected. None should be used until all can be used at once. They should be disposed secretly along the whole attacking front two or three hundred yards apart. Ten or fifteen minutes before the assault these engines should move forward over the best line of advance open, passing through or across our trenches at prepared points. They are capable of traversing any ordinary obstacle, ditch, breastwork, or trench. They carry two or three Maxims each, and can be fitted with flame apparatus. Nothing but a direct hit from a field gun will stop them. On reaching the enemy's wire they turn to the left or right and run down parallel to the enemy's trench, sweeping his parapet with their fire, and crushing and cutting the barbed wire in lanes and in a slightly serpentine course. While doing this the Caterpillars will be so close to the enemy's line that they will be immune from his artillery. Through the gaps thus made the shield-bearing infantry will advance. If artillery is used to cut wire, the direction and imminence of the attack is proclaimed days beforehand. But by this method the assault follows the wire-cutting almost immediately, i.e., before any reinforcements can be brought up by the enemy, or any special defensive measures taken.

4. The Caterpillars are capable of actually crossing the enemy's trench and advancing to cut his communicating trenches; but into this aspect it is not necessary to go now. One step at a time. It will be easy, when the enemy's front line is in our hands, to find the best places for the Caterpillars to cross by for any further advance which may be required. They can climb any slope. They are, in short, movable machine-gun cupolas as well as wire smashers. The naval torpedo-net cutter, fixed in front of them with guides to lead the gathered wires into it, has proved absolutely successful. The spectacle of such a machine cutting wire entanglements has only to be witnessed to carry conviction. It resembles the reaping opera-

tions of a self-binder. Three or four days' notice to the Trench Warfare Department should enable this demonstration to be made.

5. It is obvious that the above form of attack requires, at the present season, frost, darkness, and surprise. The parry to the Caterpillar is either protective mining galleries, fougasses, buried shells, &c., or field guns concealed in the parapet. But if this trick works once a new one can be devised for next time. Until these machines are actually in France, it is not possible to measure the full limit of their powers. But it is believed that, during the dark hours of a winter's night, not one but several successive lines of trenches could be taken by their agency. As they moved forward into the enemy's positions, his artillery would be increasingly hampered in firing at them, and, with deepening confusion, the location of and laying the guns upon these moving structures will become almost impossible. Daylight would leave them an easy prey; but if daylight witnessed an entirely new situation they would have done their part, even if they could not be withdrawn. They would, as they advanced, carry the infantry attack along with them and serve as movable points d'appui, guiding and defining the attack.

6. Surprise consists in novelty and suddenness. Secrecy is vital, and it should be possible, over a period of three or four weeks, to work routine conditions into such a state that very little extraordinary preparation would be required. The weak man power available in the enemy's front line can easily be overwhelmed by forces which might appear to be assembled in the ordinary course. If the troops holding our line are gradually strengthened, and our moment of relief made to miss the enemy's moment of relief, sufficient force for taking the enemy's first lines should be obtained.

The necessary movement of supports and reserves, and the rôle of our artillery, belong to the regular offensive and are not dealt with in these notes on "variants". It is worth while considering, however, whether the advance of supports and reserves by night, especially after the enemy's line is reached, could not be directed by search-light beams shot from the rear, each brigade pursuing generally the line of the light assigned to it. In this way strong bodies can be guided to definite points and stopped by switching off the light, whatever the confusion or breakdown of signals.

7. The conception of this attack involves the simultaneous employment of all the armour devices above mentioned. On no one in particular must we be solely dependent. The individual shield-bearing soldiers must have their own implements for cutting or crossing the wire.* The composite shields must blanket off the machine-guns. The Caterpillars are an addition, good in themselves, but better and sure in combination. Above all surprise.

* In the dockyards one frequently sees men cutting steel plates with a jet of flame as if they were brown paper. Could not a rod be made which a soldier could carry with the necessary gas cylinder, which would enable him to fuse instantly the wire in his front? If so, no invention would appear to be more urgently required.

LIEUT.-COLONEL E. D. SWINTON'S
"NOTES ON THE EMPLOYMENT OF
TANKS."

[These notes as to measures of preparation and suitable tactics for tanks are not intended to imply that the whole of our offensive operations are to be subordinated to their action. They are put forward as a basis for early discussion of the possibilities and requirements of an entirely new weapon, so that by the time that it is ready for employment everything possible may have been done to ensure its success.]

1. The use made by the Germans of machine guns and wire entanglements—a combination which has such power to check the advance of infantry—has in reply brought about the evolution of the "Caterpillar" bullet-proof climbing motor, or "Tank," a machine designed for the express purpose of assisting attacking infantry by crossing the defences, breaking through the obstacles, and of disposing of the machine guns. It is primarily a machine-gun destroyer, which can be employed as an auxiliary to an infantry assault.

DESCRIPTION.

The Power of the Tanks now being made.

Progression.

2. The type of machine being constructed can travel at 4 miles per hour on the level, forwards or backwards, and at about 2 miles per hour over rough ground and when climbing.¹ It can cross parapets of up to 5 feet in height (even when revetted vertical) and span trenches or gaps up to 10 feet in width, and break through wire entanglements of British or German type.

[The armament has not been absolutely decided upon in all details at present.]

Offence.

3. The weapons of each tank against personnel will be :—
(a) Fire from Hotchkiss machine guns.²

¹ Or 110 yards and 55 yards per minute respectively.

² Experiments are being made with special short-barrelled Hotchkiss machine guns which will give accurate shooting up to a range of 400 yards.

- (b) Possibly case shot from two 6-pr. Q.F. guns, one on each flank.

Its weapons against hostile machine guns are :—

- (c) Its own weight. This can in specially favourable cases, where the enemy's machine guns are situated in the trenches, be brought into play by rolling over the emplacements and crushing them.
- (d) Fire from two Hotchkiss 6-pr. Q.F. guns, having arcs of fire from straight ahead to 30° abaft the beam, or 120° on each side. The shell are common, pointed, base fused, bursting on percussion or graze, and filled with black powder or some other low explosive. With the reduced propellant charge used in the guns carried, the projectiles will penetrate 2 inches of plate before bursting, and will therefore pierce the ordinary German loophole plate and the machine gun and field gun shield.¹

4. Hostile machine guns which it is impossible or inconvenient to crush will be attacked by gunfire. It is specially for the purpose of dealing with these weapons ensconced in houses, cellars, amongst ruins, in haystacks, or in other concealed positions behind the enemy's front line, where they may not be knocked out by our artillery, and whence they can stop our infantry advance, that the tanks carry guns. Being covered with bullet-proof protection, and therefore to a great extent immune from the hostile machine guns, they can approach sufficiently close to locate the latter, and pour in shell at point blank range.

5. Though the assumption is that long-range fire will not be required for the above purpose, it may happen, owing to the speed of advance hoped to be rendered possible by the neutralization of the holding power of the enemy's machine-gun fire (which has hitherto been the most important factor in checking the momentum of our assaults) that the tanks, along with our infantry, will be able, soon after the start of the offensive, to get within range of the German artillery position. The 6-pr. guns firing with reduced charges will give accurate shooting up to a range of 2,000 yards, and they are being fitted with telescopic sights so that full advantage may be taken of a chance of this nature should it occur.

Defence (Active).

6. As detailed above for offence.

Defence (Passive).

7. The hardened steel plates (up to 12 millimetres in thickness) with which the tanks are enclosed, give complete protection against shrapnel balls, almost complete protection against rifle and machine-gun fire of any nature that is likely to be encountered, and considerable protection against the splinters of high-explosive shells that may detonate close by.

¹ The Hotchkiss 6-pdr. Q.F. is a naval gun which has been adopted as being the only suitable weapon available. A reduced charge is employed because one-half of the guns supplied will be of single tube construction and cannot fire full charges.

Communication with the Rear.

8. As will be seen, it is proposed that the tanks should accompany the infantry in the advance. They will, therefore, to some extent share any methods of communication adopted for the infantry. But since they can convey any apparatus in safety from shrapnel and rifle fire, it may be an advantage for them to carry means of their own for communication with their headquarters in rear, to supplement that used by the infantry. Experiments are being carried out, therefore, in the following methods of communication, which will be alternative in their application :—

Equipping a certain portion of tanks (say one of every ten) with small wireless telegraphy sets capable of action up to five miles. These would be used for code or abbreviated messages.

Equipping a certain proportion of tanks (say one of every ten) with apparatus for laying a field telephone cable either on the surface of the ground or possibly buried 12 inches deep. These would be used for conversation in clear, and would also serve for artillery observation purposes.

Installing a system of visual signalling to the tanks from the starting line by means of miniature kite balloons. This would be limited in scope, and would work one way (forward) only, and would serve to transmit a few pre-arranged orders.

Installing a system of signalling from the tanks by smoke rocket. This would be more limited in scope and would also work one way (backward) only, and would serve to transmit a pre-arranged signal.

Limitations to Progress.

9. The exact size and nature of the streams that can be negotiated by the tanks are not yet definitely settled, and will form the subject of experiment ; but it is certain that rivers or canals of a depth of water much over 1 foot, having a muddy bed, or having banks over 3 feet in height steeper than a slope of 1/1.6 cannot be crossed by them until a crossing with ramps and a hard bottom has been prepared. The ordinary small bridges in the hostile zone, even if not destroyed, will not carry these machines. Woods and closely planted orchards also form an absolute obstacle to their movement.

Though the tanks can cross soft soil and muddy ground they will travel better in dry weather.

Vulnerability.

10. *The tanks will be destroyed by a direct hit of any type of howitzer shell.*

They will probably be put out of action by all except the most glancing hits of high-explosive shell fired by field guns.

They will probably be put out of action by all except the most glancing hits of shell fired from any form of high-velocity small-calibre Q.F. gun (such as the Germans are believed to have mounted in their defensive zone), which projectiles will, it is thought, penetrate the plating and burst inside the machine, thus immobilising it by putting the whole crew out of action.

They may also be blown up by mines or land-mines.

Special stress is laid on the vulnerability of the tanks to artillery fire of different natures, because it represents their chief weakness, and because the simplest and most quickly organised method for the Germans to counter their employment will be by emplacing large

numbers of field and small quick-firing guns in the defensive zone. Nevertheless, though there appears to be no direct method whereby they can escape the risks from the projectiles actually fired against them, there are tactical measures which can (if carefully thought out and prepared for *beforehand*) be taken to reduce indirectly the number of such projectiles fired, i.e., the hampering by our bombardment of the activity of the enemy's artillery over the sector of front concerned. Special allusion is made to this later. (See paragraph 39.)

Impossibility of Repeated Employment.

11. Since the chance of success of an attack by tanks lies almost entirely in its novelty and in the element of surprise, it is obvious that no repetition of it will have the same opportunity of succeeding as the first unexpected effort. It follows, therefore, that these machines *should not be used in dribblets* (for instance, as they may be produced), but the fact of their existence should be kept as secret as possible until the whole are ready to be launched, together with the infantry assault, in one great combined operation.

MEASURES OF PREPARATION

Place of Employment.

12. The sector of front where the machines can best operate should be carefully chosen to comply with their limitations, i.e., their inability to cross canals, rivers, deep railway cuttings with steep sides, or woods and orchards. And this should be done as long as possible before the moment of attack, so that time may be allowed for the execution of the work on the lines of communication and in the shelled area behind the front line necessary to allow of the machines coming up to position without delay when required.

Conveyance to the Front.

13. Once the most favourable sector for the action of the tanks has been located, and therefore their exact distribution behind the front fixed, the best method of conveyance from the coast can be settled. This may be by road, by rail, or by barge, or possibly by a combination of road, rail, and canal, according to the communications available towards the chosen sector.

In any case, however, certain preparatory measures will have to be taken beforehand :—

The roads to be followed will have to be reconnoitred and the bridges strengthened, or ramps cut to the rivers or streams ; and the possibility of collecting at the right time sufficient railway trucks or barges of the type necessary to carry the tanks will have to be investigated.

Frontage in Attack.

14. The exact distance apart at which the tanks should move forward in the assault is a matter for experiment, but it is thought that in order to enable them thoroughly to search the ground for concealed machine guns, to support each other mutually by their own fire and to sweep the German parapets sufficiently to permit of our infantry advancing more or less unscathed, they should not be more than 150 yards apart. It will serve to simplify present calculations

if the interval be taken at a round figure of 100 yards. As regards the total frontage taken up, the number of tanks under construction at present is 100 ; but since it is not safe to assume that more than 90 per cent. of the whole number available will be in line (to allow for the machines told off to work outwards and to work laterally for destroying wire), the front of attack of that number will be 9,000 yards, or 5 miles. For the sake of discussion this distance will be assumed in considering an operation undertaken by the whole of the machines available, the reduction of front where a lesser number is used being *pro rata*.¹

Position of Assembly.

15. This may be on a line parallel to our front line, and, say, some 2 miles behind it. Here the machines should remain sufficiently long for the crews to reconnoitre, ease, and mark out the routes up to the points where they will actually cross the front defences, and to learn all that can be discovered of the German front line trenches and the defence zone behind it over which they have to advance.

16. The officers and men will be trained at home, as far as possible, to steer and operate over an imitation British and German trench zone by the aid of trench maps similar to our aeroplane maps of the German defensive positions.

17. Along the position of assembly the tanks will not be distributed at equal intervals so as to attract the notice of hostile aviators, but will be placed amongst trees, in villages, &c., so as to obtain concealment.² From it they can move up early on the night preceding the attack to their *final positions* or starting points, just behind where they will actually cross our trenches, and will wait there till the moment for advance (assumed to be just before dawn—see later) ; or, if this procedure is considered impossible, owing to the intensity of the hostile bombardment directed in the vicinity of our front line, they can move straight from the position of assembly during the night, so as to reach their starting points just before the time for the advance. The routes to the front line will have to be marked for night work with special lanterns to show light towards the rear of our position.³

18. If it is considered advisable for any reason that the machines should go up to their final positions still earlier, and therefore remain there during daylight, suitable pits will have to be excavated for them beforehand, so that they will not be visible to the enemy over our parapets. To confuse the enemy's air scouts several more pits than necessary will have to be dug some considerable time before the attack.

¹ This calculation as to the extent of frontage will hold good whether the tanks move forward in one continuous line or in groups with intervals between the groups so that certain areas may be "bitten off" by a lateral movement as soon as sufficient forward progress has been made. The selection of either method of attack is a matter of general tactics, and not one specially connected with the employment of tanks.

² Special tarpaulin covers coloured so as to represent tile or thatch roofs can be made ready.

³ A certain number of such lanterns can be supplied as part of the equipment of each machine. Allowing for delays caused in the dark, to traverse the assumed distance of 2 miles from the position of assembly to the starting points should not take more than two hours.

19. The starting points will be 100 yards apart only, approximately, and should be carefully chosen so as to be opposite some special enemy's points, such as located field or machine-gun emplacements and the forward ends of communication trenches, &c.

20. During the journey up from the coast, whether by road, rail, or canal, the tanks will be encased in special tarpaulin covers marked "Drinking water only", or with some similar misleading label. The guns and sponsons for each will be carried on special trailers designed for the purpose, and can be placed in position on board and bolted up at whatever stage on the journey that is convenient.¹

TACTICS.

(Only such points as appear to concern the use of tanks are referred to.)

Time of the Advance.

21. The most favourable time for the tanks to advance, so as to avoid the chief danger to which they will be exposed, i.e. the hostile artillery fire, would be at night. But there are disadvantages in such a course which makes its adoption inadvisable. Firstly, no infantry could accompany the machines, for the crews of the tanks would not be able to distinguish the flashes of our rifles from those of the enemy—which would be all that they would have to go by in the dark. Secondly, it would not be possible for the drivers to see the obstacles in front of them, and they could not manipulate the clutches for climbing, or steer the machines so as to avoid uncrossable spots. It seems that the best moment for the start will be just before dawn, as soon as there is sufficient light in the sky to distinguish objects to some extent. A start at such a time, also, will give the greatest number of hours of daylight for pressing on with the offensive.

Synchronization of the Advance of the Tanks with the Infantry

Assault.

22. The tanks, it is thought, should move forward together, say, by rocket signal, sweeping the enemy's first-line parapet with machine gun fire; and after they have proceeded some three-quarters of the way across "No-man's-land," and have succeeded in attracting to themselves the fire of the German infantry and machine guns in the front line, the assaulting infantry should charge forward so as to reach the German defences soon after the tanks have climbed the parapets and begun to enfilade the trenches.

23. Since not much difficulty is usually experienced in rushing the German first line after a thorough bombardment, it may be thought that it is unnecessary for the tanks to precede the infantry assault or even to accompany it, and that they should be kept behind our line and only sent forward to help the infantry where and when the latter are held up by uncut wire and machine-gun fire. There appear, however, to be drawbacks to such a course:

¹ The tanks are less noisy than might be expected, and it is thought that the sound of the bombardment from both sides and the noise from rifle and M.G. fire from the front line or behind it will mask that of the tanks going from the position of assembly to the final positions.

24. It would result in unnecessary loss to the infantry, who will be able to discover the presence of uncut wire or of hostile machine-guns only by finding themselves checked, shot down and unable to proceed. (It is to obviate such loss that the tanks are being produced.)

25. It would result, also, in delay, as a check would have to be experienced by the infantry, a message sent back for the assistance of the tanks, and the latter sent forward to clear away the obstruction. This would entail the otherwise avoidable expenditure of a considerable amount of time and a consequent reduction of the speed of the progress through the enemy's defensive zone (which may be in all some 3 or 4 miles in depth). It would therefore lessen the chance of the attack breaking through the defence whilst any beneficial effect that might be produced by its novelty was still in operation. This retardation of the advance might give the enemy time to reinforce the threatened section of their line with men, machine guns, and, what is more important from the point of view of this special form of attack, with field artillery.

26. Lastly, it would result, it is thought, in greatly decreasing the chances of success of the tanks themselves, owing to the fire of the German artillery which, it must be repeated, is their greatest danger. The reasons for this view are as follows : In whatever way the attack is made, whether it be of infantry preceded by tanks or of infantry alone, so soon as it is launched and is seen by the Germans to cross our own parapets, the message will be sent back to the hostile artillery, who will put down a "curtain of fire." This curtain, it is believed, usually covers No-man's-land and our front line, so as to catch the assaulting troops, and also covers area between our front and supporting lines, so as to prevent our supports going forward. It takes place very quickly, but there is nevertheless an appreciable interval of time between the moment when our assault is launched and its occurrence.

27. If the tanks are kept back anywhere near our front line until after the assault has started they may either be caught in this heavily shelled zone, or when required to go forward may be cut off by the curtain of fire from our infantry who have gone ahead beyond the German front line and suddenly found themselves checked and in need of help.

28. On the other hand, unless expectations are falsified, if the machines accompany the assaulting infantry, moving with it, or just ahead of it, as sketched out above, both will be across the enemy's front line and on their way to the second before the curtain of fire descends, and the latter will be behind them. It is hoped similarly that, owing to the prevention of the usual checks to the advance, which the action of the tanks will ensure, by the time the German gunners shorten the range in order to provide a second curtain in front of their second line, our assault will have already have swept beyond that line.

29. The above anticipations are admittedly sanguine ; but if the tanks are employed and are successful, it is thought that they will enable the assault to maintain most of its starting momentum, and *break through the German position quickly*. To enable the expected rate of advance to be maintained will necessitate the launching of a very large force of infantry from the first, so that the successive lines

of defence may be rushed by fresh troops, and occupied and consolidated by others left behind.

30. It seems, also, that the infantry should include an unusually large proportion of bombers, to supplement the action of the tanks, which will not have any such means of searching out hidden ground.

The Extent of the Obstacle cleared by the Tanks.

31. Each tank will clear only its own width through the entanglement, and though some of the assaulting infantry may make use of these gaps, the fact that an attack by tanks is to be made will not preclude the usual wire-cutting fire of our guns and trench mortars across the sector over which they operate. (See paragraph 39.)

Action of the Tanks after crossing the German Front Line.

32. Except for those few machines which are detailed to travel along the wire entanglement laterally (see paragraph 44), the tanks will halt at the enemy's front line, keeping it under enfilade fire, only until our assaulting infantry have reached it, when they will proceed straight ahead at full speed for the German second line, as far as possible following up alongside the hostile communication trenches, which they will sweep with machine-gun fire, thus dealing with any German reinforcements and bombing parties coming up. Some of the infantry, armed with hand-grenades, should follow in their wake, to assist to search out dead ground with bombs. At the same time, the "skipper" and guns crews of the tanks will keep a sharp look-out for machine-guns in the second line. When discovered, these will be shelled or, if possible, crushed.

Extent to which the Attack is Pressed.

33. The extent to which the attack is pressed, i.e. whether it is to be a step by step operation in which, after artillery preparation, a strictly limited advance is made over the front concerned and the gain of ground consolidated, and then, after the necessary pause to give time for a renewed artillery preparation of the enemy's new front line a further limited advance is made, and so on; or whether a violent effort is to be made to burst right through the enemy's defensive zone in one great rush, depends on the decision of the Commander-in-Chief and the strategic needs of the situation. But, so far as is known, a step-by-step advance—which has the drawback of giving the enemy time to reinforce the sector threatened—is not a course recommended for any positive advantages which it possesses. It is a course which has been forced on us by the inability, with the means hitherto at our disposal, of infantry even after immense sacrifice of life to force their way through successive lines of defence guarded by machine-guns and wire, of which none but the first can be thoroughly battered by our artillery.

34. Not only, however, does it seem that the tanks will confer the power to force successive comparatively unbattered defensive lines, but, as has been explained, the more speedy and uninterrupted their advance the greater the chance of their surviving sufficiently long to do this. It is possible, therefore, that an effort to break right through the enemy's defensive zone in one day may now be contemplated as a feasible proposition.

35. Apart from the topographical limit placed on an offensive action of this nature for other reasons, the limits due to the power of the

tanks are very broad. Even taking the average rate of progress during the actual attack at not more than 1 mile per hour, on a sector of country without natural obstacles, an advance of 12 miles forward could be carried out during the daylight hours by those tanks which were not knocked out by gun fire. A movement on this scale will take our troops past the enemy's main artillery positions, and would, if successfully effected, imply the capture or withdrawal of their guns.

36. This being the case, it appears that when the tanks are used the contingency of such an extended bound forward being made should be most carefully legislated for in the way of preparation to send forward reinforcements, guns, ammunition, and supplies. In regard to the replenishment at the end of the first day's fighting of the tanks themselves with fresh crews and ammunition in the event of such rapid progress being made, schemes have yet to be worked out.

CO-ORDINATED ACTION OF ALL ARMS

37. The necessity for the co-ordination of all arms to work together in the offensive generally requires no remark here, but the desirability of the specially careful consideration of the subject in the case of an operation by tanks requires some emphasis, since the orchestration of the attack will be complicated by the introduction of a new instrument and one which somewhat alters the chain of interdependence of all. A recapitulation of this chain will make the matter clear. The tanks cannot win battles by themselves. They are purely auxiliary to the infantry, and are intended to sweep away the obstructions which have hitherto stopped the advance of our infantry beyond the German first line, and cannot with certainty be disposed of by shell fire. It follows therefore that the progress of the attack, which depends on the advance of the infantry, depends on the activity and preservation in action of the tanks.

38. The weapon by which the tanks are most likely to be put out of action are the enemy's guns. The only means by which we can at the early stages of an attack reduce the activity of the enemy's guns are by our own artillery fire or by dropping bombs on them from the air.

39. It follows, therefore, that in order to help our infantry in any operation in which tanks take part (which is admitted to be the rôle of artillery, also an auxiliary arm) the principal object of our guns should not be to endeavour to damage the German machine guns, earthworks, and wire, behind the enemy's first line, a task they cannot with certainty carry out, and which the tanks are specially designed to perform. It should be to endeavour to help the infantry by helping the tanks, i.e. by concentrating as heavy a counter fire as possible on the enemy's main artillery position and on any field or other light guns whose situations behind the first line is known.¹ For this purpose, i.e. of spoiling the enemy's shooting for the period

¹ This refers to the action of our guns *after our attack had been launched* and does not affect the question of the previous artillery preparation, which should be of a normal nature, to avoid rousing suspicion, except that special pains should be taken to knock out the enemy light pieces emplaced in the defensive zone.

of the advance, a free use of gas or poison shells might be very efficacious.

40. At the same time, any disturbance which could be caused amongst the enemy gun detachments by the dropping of bombs of any nature would be valuable by every round which would be prevented from being fired.

41. If the above-mentioned assistance is given to the tanks by the action of our artillery and aeroplanes, it will necessitate considerable previous preparation to this end over and above that entailed for the normal offensive. It will include special air reconnaissance beforehand in order to locate the enemy gun positions over the sector of the attack; the concentration of an extra proportion of heavy artillery for the purpose of making a special effort against those of the enemy guns which can be directed on this sector; the collection of special ammunition, such as gas shells, and of bombs for the aeroplanes.

42. These measures may appear somewhat excessive in their extent and scope, but it is thought that the trouble entailed in carrying them out will be more than justified if they enable the tanks to perform their function of assisting the progress of the attacking infantry to an extent which seems possible.

Aids to the Attack by Tanks.

43. In order to increase the confusion which it is hoped will be caused amongst the enemy by an attack by tanks, and to assist in concealing the exact nature and the progress of these machines, it would be of advantage if their advance were heralded by clouds of smoke. The employment of gas, it is thought, may be dangerous, as the forward movement might be so rapid as to take our men into their own gas. The release of smoke only on the sector where tanks are used might be accompanied by the release of gas and smoke elsewhere, so that the enemy would not know what was poisonous and what was not.

Though the co-operation of gas or smoke will be an advantage, reliance on such assistance will introduce another complication into the operations, since the movement of attack will be dependent on the occurrence of a favourable wind as well as on the general prevalence of dry weather.

More Complete Clearance of Obstacles.

44. In order to clear away the obstacles over a broad front for the subsequent advance of reinforcements, or a burst through of a mass of cavalry, experiments are being made in trawling along the entanglements laterally by pairs of machines connected by a wire hawser. This would be done after the assault had passed over the obstacle.

Command and Control of the Tanks.

45. The frontage of an attack by 100 tanks would, as has been explained, extend to some 5 miles, so that the question of the control will have to be worked out with some care. It seems, as the tanks are an auxiliary to the infantry, that they must be counted as infantry and in operation be under the same command.

E. D. S.

February 1916.

THE SOMME, 1916

G.H.Q. INSTRUCTIONS FOR THE BATTLE OF FLERS—COURCELETTE.

General Sir H. Rawlinson, Bt., K.C.B., K.C.V.O.
Commanding Fourth Army.

General Sir H. Gough, K.C.B.,
Commanding Reserve Army.

O.A.D. 131.

1. The following instructions for an attack to be delivered in September are in amplification of those already issued in No. O.A.D. 116, dated 19th August, 1916.¹

2. During the two months that the Battle of the Somme has lasted the enemy has suffered repeated defeats and heavy losses, and has undergone many hardships.

All this has undoubtedly told on his discipline and moral, and signs of deterioration in his troops are not wanting.

The general offensive on all his fronts, which will be continued, has placed a great and prolonged strain on his power of resistance which strain will now be increased by the entry of Roumania into the war.

The reserves at the enemy's disposal to meet a renewed attack are very limited and consist mainly of tired troops which have already suffered severely. Moreover, it is not unlikely that he will be compelled to transfer some of his reserves to his Eastern front.

The combined attacks to be launched by the French and British troops during the first week of September, and the counter-attacks by the enemy that are likely to result, will weaken him further and wear down the divisions now opposed to us.

On our side several fresh divisions are still available to be thrown into the scale after these combined attacks have been carried out. We shall also have a new weapon of offence (some 50 tanks) which, coming as a surprise to the enemy, are likely to be of considerable moral and material assistance to us.

In short, we are approaching a stage in the battle when bold and energetic action may give great—perhaps decisive—results, provided the requisite preparations are made in time and all ranks put forth their utmost efforts.

3. For the above reasons, the Commander-in-Chief has decided

¹ Appendix 16.

that the attack projected for the middle of September is to be planned as a decisive operation and all preparations made accordingly.

No effort must be spared to complete preparations in time for the attack to be launched on the 15th September.

4. The general objective of the attack remains the same as it has been from the outset, viz.: the destruction of the enemy's field forces.

The general plan of attack will be as described in paragraphs 1, 4, 5, and 6 of O.A.D. 116 of the 19th August, 1916.

5. On the assumption that the line Ginchy—Bouleaux Wood **Sketch 31.** has already been secured the General Officer Commanding Fourth Army, while pressing the attack on his whole front, will direct his main efforts to the capture, as quickly as possible, of Morval, Les Boeufs, Flers, and Gueudecourt. Then, as soon as the necessary gap in the enemy's defences in that area has been made, as strong as possible a force of cavalry, supported by other arms, will be passed through to—

- (a) Establish a flank guard of all arms on the general line Morval—Le Transloy—Bapaume, and
- (b) assist rolling up the enemy's lines of defence to the north-westward by operating against their flank and rear in co-operation with the attack which will continue to be pressed against their front.

6. All arrangements are to be made with a view to overwhelming the enemy at the outset by a powerful assault, and following up every advantage gained with rapidity and vigour.

The exploitation of success to the full, during the first few hours is essential to a decision and it must be impressed on all Corps and Divisional Commanders that the situation calls for great boldness and determination on their part. It lies with them to feel the pulse of the battle and to turn favourable opportunities at once to the fullest account. In particular it is of great importance to reach the enemy's artillery positions quickly and capture his guns. Risks must be minimized not by declining to accept them but by skilful handling of reserves.

7. The necessity for great vigour and determination in this attack, and the great results that may be achieved by it, must be impressed on all ranks as soon as considerations of secrecy will permit of their being informed of what is required of them.

It will also be necessary then to impress on all leaders that the slow methods of trench warfare are unsuited to the style of operations they will be called upon to undertake after the enemy has been driven from his prepared lines of defence.

8. The remarks in the preceding paragraph apply more particularly to the Fourth Army as regards the earlier operations, during which the attack of the Reserve Army, acting as a pivot, will have a more limited scope.

Subsequently, when the situation is ripe for it, the Reserve Army will act on similar principles.

9. A Cavalry Corps Staff, under Lieut.-General C. T. McM. Kavanagh, will be formed as a temporary measure and placed (until further orders) at the disposal of the General Officer Commanding,

Fourth Army. The two cavalry divisions now at the disposal of the latter will be reinforced later, as required, to a total of 4 or 5 cavalry divisions.

9A. The allotment of "tanks", and the dividing line between Armies, will be as stated in O.A.D. 116 of 19th August, 1916.

10. The First, Second, and Third Armies will be prepared to assist in exploiting a decisive success in accordance with general instructions already issued to them.

11. It has been arranged that French forces will co-operate in the attack, and in the exploitation of success, on the right flank of the Fourth Army. Further details as to this will be communicated in due course.

Adv. G.H.Q.
31st August, 1916.

L. E. KIGGELL,
Lieut.-General,
Chief of the General Staff.

THE SOMME, 1916

BATTLE OF FLERS—COURCELETTE.

FOURTH ARMY INSTRUCTIONS.

1. GINCHY and the enemy's trenches in T.14.c. and d. T.15.c. Map 1, and T.21.a. and c., have been captured by the XIV Corps.¹ The Sketches XV and III Corps have both advanced their lines. A, 31.

2. The Fourth Army will attack the enemy's defences between the COMBLES Ravine and MARTINPUICH on Z day with the object of seizing MORVAL, LES BOEUFs, GUEUDECOURT and FLERS, and breaking through the enemy's system of defence.

The Reserve Army is attacking simultaneously on the left of the III Corps.

The French are simultaneously undertaking offensive operations on the right of the XIV Corps.

3. The attack will be pushed home with the utmost vigour all along the line till the most distant objectives have been reached.

For the last two and a half months we have been gradually wearing the enemy down, his moral is shaken, he has few, if any, fresh reserves available, and there is every probability that a combined determined effort will result in a decisive victory.

4. The objectives allotted to Corps, and boundaries between Corps, are shown on the attached map.²

The infantry will advance to the attack of the green line at Zero, of the brown line at 0.45, of the blue line at 1.30, and of the red line at 4.30.³

The hour of Zero and date of Z day will be notified later.⁴

5. Instructions for the action of the artillery, and for the employment of the "tanks" are attached.

6. The Cavalry Corps will be disposed in depth by 10 A.M. on Z day with the two leading Divisions in the neighbourhood of CARNOY, ready to move at short notice.

As soon as FLERS, GUEUDECOURT, LES BOEUFs and MORVAL

¹ Trench running eastward from Ginchy—Quadrilateral, thence trench to Leuze Wood. This information anticipated a success which was not realized.

² Not reproduced.

³ Altered later to brown line at 1.00, blue line at 2.00, and red line at 4.30.

⁴ Notified later by Fourth Army as 6.20 A.M. and 15th Sept.

have been captured by the infantry, the Cavalry will advance and seize the high ground ROCQUIGNY, VILLERS AU FLOS, RIENCOURT LES BAPAUME, BAPAUME.

The XIV and XV Corps will be prepared to support the cavalry with infantry on the above line at the earliest possible moment.

Detailed instructions will be issued separately to the Cavalry Corps.

7. The colours of the Flares to be used by Corps and by the Cavalry on Z day will be notified later.¹

Detailed orders as to when they are to be lighted will be issued by Corps.

Full use will be made of ground sheets and signalling panels by Brigade and Battalion Headquarters, and also by Cavalry Brigades and Regiments.

8. The general plan of operations remains the same, that is to establish a flank facing East on the general line of the SAILLY SAILLISEL—BAPAUME Road whilst the bulk of the Fourth and Reserve Armies operate Northwards towards SAPIGNIES, ACHIET-LE-GRAND and MIRAUMONT, the Cavalry operating on the right flank of their advance.

9. Acknowledge by wire.

H.Q., Fourth Army.

11th September, 1916.

Issued at 11.30 A.M.

A. A. MONTGOMERY,

Major-General,

General Staff, Fourth Army.

ARTILLERY INSTRUCTIONS.

1. Guns and Howitzers will be pushed forward and registration commenced as soon as possible in preparation for the attack on "Z" day.
2. Commencing on the 12th September bombardment by howitzers of the hostile defensive system will take place from 6 A.M. to 6.30 P.M. daily.
The fire during the first half hour of each day of this bombardment should be brisk.
This bombardment is to be regulated and its effect gauged largely on information obtained from Photography.
3. The preliminary bombardment on the day of the attack will be similar to that of the previous days, there being no further increase of fire previous to zero.
At 6.30 P.M. daily night firing will commence and will be continued until 6 A.M.
Lethal shells will be used to increase the effects of the night firing.
4. The fire will be intensive when the Infantry attack at zero and is to be maintained throughout the operations according to the tactical situation.
5. The Field Artillery will carry out wire-cutting and such registra-

¹ Red by the infantry and green by the cavalry : flares to be issued to Corps by 4th Bde. R.F.C.

tion and special bombardment as is necessary by day ; otherwise during the day it should remain as quiet as possible, with due regard to its being prepared to take full advantage of favourable opportunities of inflicting losses and preventing all hostile movement.

6. Counter-battery work is to be pursued with the utmost vigour by day and if necessary by night.
Counter-battery areas will remain as at present.
7. Full use is to be made of the fire of long range guns and of enfilade fire.

Distant Billets will be dealt with by Corps as under :—

XIV Corps :—LE MESNIL.

ROCQUIGNY.

BARASTRE.

XV Corps :—VILLERS AU FLOS.

RIENCOURT.

BANCOURT.

III Corps :—THILLOY.

BAPAUME.

FBG. DE PERONNE.

GREVILLERS.

8. Woods and Villages with the approaches therefrom will be dealt with by Corps as under :—

INNER ZONE.

OUTER ZONE.

XIV Corps :—MORVAL.

LE TRANSLOY.

LES BOEUF.

SAILLY SAILLISEL.

N. portion of COMBLES.

XV Corps :—FLERS.

BEAULENCOURT.

GUEUDECOURT.

III Corps :—MARTINPUICH.

LE SARS.

EAUCOURT L'ABBAYE.

LE BARQUE.

LIGNY THILLOY.

9. Batteries will require to maintain a full dump of ammunition at the guns in view of :—

(i) The preliminary bombardment being long.

(ii) The operations on the day of the attack being extended and probable expenditure of ammunition consequently large.

(iii) Difficulties in connection with replenishing ammunition at the guns.

10. On the day of the attack units must be prepared to make use of auxiliary means of communication.

11. Attention is called to the importance of controlling the ammunition traffic near the front line.

12. Artillery reinforcements will be added to Corps as stated below :—

III Corps :— One 60-pounder Battery.

One 6" Siege Howitzer Battery.

XV Corps :— One 60-pounder Battery.

One 9.2" Siege Howitzer Battery.

XIV Corps :— Three 60-pounder Batteries.

One 9.2" Siege Howitzer Battery.

13. For bombardment and barrage purposes Corps will deal with their allotted objectives, and fronts.
14. With a view to an advance, maps should be carefully studied, and battery positions and the routes to them reconnoitred, as far as possible.
15. The XIVth and XVth Corps will each detail one 60-pounder Battery and one 6" Howitzer Battery which in the event of the Cavalry Corps being launched will be placed by order of Army Headquarters at the disposal of the Cavalry Corps.
The numbers of the Batteries selected will be communicated to Army Headquarters.
16. The Cavalry do not propose to enter villages so that the fire on distant billets (para. 7) should be maintained after the Cavalry have advanced.

INSTRUCTIONS FOR THE EMPLOYMENT OF "TANKS".

1. The "Tanks" have been allotted to Corps as follows :—

XIV Corps. C Company less 1 Section (18 ¹ tanks).

XV Corps. D Company less 1 Section (18 tanks).

III Corps. 1 Section D Company }
1 improvised Section ² } 12 tanks.

Reserve Army. 1 Section C Company.

2. Tanks should operate as a general rule in groups of 3, and will move in column (line ahead) along tracks or easily recognized trenches.

3. Tanks should be assembled on the night X/Y in positions not more than 1 mile from points of departure. Movement to be made during hours of moonlight.

On the nights Y/Z tanks will move during hours of moonlight to positions of departure.

Very careful reconnaissance should be made of routes and positions of departure, and routes marked out by tapes. A pace of 15 yards per minute should be allowed for.

4. Aeroplanes will, if the weather permits, fly over the hostile front lines during the hours of moonlight on the nights W/X, X/Y, Y/Z under Army arrangements so as to cover the noise of the moving tanks as much as possible.

5. The Attack of the First Objective.

Tanks will start movement at a time so calculated that they will reach their objectives 5 minutes before the infantry.

The infantry will advance as usual behind a creeping barrage in which gaps, about 100 yards wide, will be left for the route of the tanks. The stationary barrage of both heavy and field artillery will be timed to be lifted off the objectives of the tanks some minutes before their arrival at these objectives.

¹ The XIV Corps planned to use 16 of these.

² Owing to the non-arrival of the Improvised Section, XV Corps handed over one tank to the III Corps, which thus had 8 tanks.

6. After clearing up the first objective a proportion of tanks should be pushed forward a short way to prearranged positions as defensive strong points. If necessary a tank may be sent to assist the infantry in clearing such points in the line as may be holding them up.

7. The Attack of the 2nd Objective.

Tanks and infantry will advance together under the creeping barrage. Tanks will move as before in column and on well-defined routes. The pace will be regulated to tank pace (30-50 yards per minute), but infantry must not wait for any tanks that are delayed. The action of the tanks will be as for the 1st objective.

8. The Attack of the 3rd and Subsequent Objectives.

There will be no creeping barrage.

The tanks will start sufficiently far in front of the infantry to reach the 3rd and 4th objectives some time before the infantry.

The tanks will move as before in column.

Their action will be arranged so as to crush wire and keep down hostile rifle and machine gun fire.

The infantry must not wait for any tanks that are delayed.

9. The following Signals will be used.

From Tanks to Infantry and Aircraft.

Flag Signals. Red flag.—Out of action.

Green flag.—Am on objective.

Other flags, are inter-tank signals.

Lamp Signals. Series of T's.—Out of action.

Series of H's.—Am on objective.

A proportion of the tanks will carry pigeons.

10. If tanks get behind time-table or get out of action, infantry must on no account wait for them.

11. If the tanks succeed and the infantry are checked the tanks must endeavour to help them.

12. Any tanks that may be in reserve should be moved up to the positions of assembly vacated by front line tanks on night Y/Z. They should be in telephonic communication with Corps.

13. After the capture of the most distant objectives tanks will be withdrawn under Corps arrangements to previously selected positions some way in rear of these objectives. Arrangements must be made for replenishing the petrol and ammunition supply.

General Notes.

14. (a) Recent trials show that over heavily shelled ground a greater pace than 15 yards a minute cannot be depended on. This pace will be increased to 33 yards over good ground, and down hill on good ground it will reach 50 yards a minute.

(b) Tank officers are without exception strange to the ground and to the conditions of the battle. They will require a good deal of assistance from Staffs of formations, particularly in the study of the ground over which the tanks will have to advance.

(c) Every tank going into action should be provided with a map showing its track clearly marked, and the objectives of the infantry with time-table.

H.Q. Fourth Army.

11/9/16.

A. A. M.,

M.G.G.S.

THE SOMME, 1916

BATTLE OF FLERS—COURCELETTE.
FOURTH ARMY INSTRUCTION REGARDING
THE ACTION OF THE CAVALRY CORPS.

Sketch A. 1. If the enemy's defences are broken the first objectives of the Cavalry Corps will be the high ground between ROCQUIGNY [$1\frac{1}{2}$ miles E. of Le Transloy] and BAPAUME, and the enemy's artillery in the neighbourhood of LE SARS, WARLENCOURT and THILLOY. The high ground ROCQUIGNY—BAPAUME should be seized as quickly as possible and villages and other strong points secured.

The XIV and XV Corps will support the Cavalry on this line as early as possible.

2. When relieved by the infantry of the XIV and XV Corps the Cavalry will send out strong reconnaissances to the East and North-east and assist in every possible way the advance Northwards of the Fourth and Reserve Armies towards the line SAPIGNIES—ACHIET LE GRAND—MIRAUMONT.

3. Railways by which hostile reinforcements may arrive should be interfered with as much as possible. The most vulnerable points on those railways are :—

ETRICOURT	} For immediate reinforcements.
BAPAUME	
VELU [$5\frac{1}{2}$ miles E. of Bapaume]	
FINS [$5\frac{1}{2}$ miles E. of Sailly.]	
EPEHY [11 miles E. of Combles.]	
MARCOING [$10\frac{1}{2}$ miles E. of Bapaume.]	
ACHIET LE GRAND.	

The H.Q. of enemy's formations should be raided. These are so far as is known :—

Corps and Div. H.Q.—BAPAUME.

Divisional H.Q.	{	SAILLY SAILLISEL.
		EQUANCOURT [$4\frac{1}{2}$ miles E. of Sailly.]
		ROCQUIGNY.
		VILLERS AU FLOS.
		THILLOY.
		BARASTRE.
		BIEF VILLERS.

4. The Cavalry Corps on "Z" day will be disposed as follows :—

By 10 A.M. 2 Divisions. about CARNOY—MAMETZ.

By 12 noon. 1 Division. about DERNANCOURT.

1 Division. North of BRAY.

1 Division. about BONNAY [9 miles S.W. of Albert.]

All to be ready to move at short notice.

5. G.O.C. Cavalry Corps will be responsible for giving the orders for the advance and will keep in close touch with the XIV and XV Corps.

Weather permitting the Contact Patrol aeroplanes of the Cavalry Corps should be able to give early information of the situation of the leading infantry.

6. The Cavalry Divisions will not move forward to where they will mask the guns or interfere with the advance of the infantry supports and reserves, until the infantry have secured a sufficiently strong hold of the villages of MORVAL, LES BOEUFs, and FLERS to admit of the Cavalry Divisions advancing to their objectives.

H.Q., Fourth Army,
11th September, 1916.
Issued at 9.15 P.M.

A. A. MONTGOMERY,
Major-General,
General Staff, Fourth Army.

THE SOMME, 1916
BATTLE OF FLERS—COURCELETTE.
FOURTH ARMY INSTRUCTION IN THE
EVENT OF A GENERAL ADVANCE.

1. The advance of the Cavalry to their objectives, owing to the lack of roads, the shell crater ground, and the congestion of troops in the advanced area, is bound to be an extremely difficult matter.

2. On the one hand it is most important to get the Cavalry through if the enemy's resistance breaks, on the other hand it is essential for the success of the Infantry that the Cavalry shall not interfere with the forward movement of the artillery when pushed forward to assist in the capture of the most distant infantry objectives (the Red line). Moreover, the supply of bombs, S.A.A., for the infantry attacking the most distant objectives is of vital importance.

3. It is impossible for the Army to issue detailed orders on the subject which will cover all possible eventualities. All that can be done is to impress on all ranks the principles which are to govern the advance of the artillery, the infantry reserves and transport, and the cavalry.

4. Until the infantry have reached their final objectives the artillery must have precedence up to the top of the ridge where they are to move into action to assist the infantry in their final advance, and it is the duty of the cavalry to see that they assist in every possible way the advance of the artillery to their positions. Special care must also be taken that any advanced bodies of cavalry that push forward to keep touch with the infantry do not mask guns that are in action.

5. Once the artillery is in action in the forward positions, the infantry have reached their most distant objectives, and the cavalry have been ordered forward, it will be the time for the infantry to assist in every possible way the advance of the Cavalry Divisions, the rapidity of whose advance at this period of the battle is all important.

6. The infantry reserves as they advance must take with them as much first line transport carrying reserves of ammunition as is possible, and pack animals should be made full use of. Light wagons with further reserves of food and ammunition must be pushed forward for the infantry as soon as the leading Cavalry Divisions have advanced.

7. The construction of roads and tracks through the shell crater area must be carried out with the greatest energy and special parties detailed for each road or track that is to be constructed. This must be taken in hand the moment the advance commences.

8. The infantry must carry at least 2 days' rations with them in their advance as it will probably be impossible to get supplies forward for some considerable period.

9. The Cavalry Corps must ensure that the forward areas now in our hands are not blocked with cavalry prematurely. It will not be possible to pass the cavalry through very rapidly and there will therefore be no need to move the rear Cavalry Divisions up into the congested area too soon. The rear Divisions must therefore be kept well back until the tracks in front are clear. The cavalry advance must be continuous, but it must also be very methodical, and any attempt to push too much cavalry through at one time will only lead to confusion and consequent delay.

10. The scarcity of water in our present front area must also be borne in mind, and no more use than is absolutely necessary must be made of the water in the CATERPILLAR and CARNOY Valleys.

H.Q., Fourth Army,
13th September, 1916.
Issued at 1.35 P.M.

A. A. MONTGOMERY,
Major-General,
General Staff, Fourth Army.

THE SOMME, 1916
BATTLE OF FLERS—COURCELETTE.
XV CORPS ARTILLERY OPERATION
ORDER No. 46.

11th September 1916.

- Map 1. 1. The preliminary bombardment will commence on the 12th September and last for three days.

The bombardment by Heavy howitzers will start daily at 6 A.M. and continue until 6.30 P.M.

The rates of fire for heavy and 4.5" howitzers for the first half hour each day will be—

- 1 round per 2 minutes for heavy howitzers, and
- 1 round per minute for 4.5" howitzers.

For these half hours heavy howitzers should all be concentrated on the TEA SUPPORT and SWITCH lines : 4.5" howitzers on above, and also on communication trenches between these lines and on COFFEE LANE.

2. The area allotted to the XVth Corps for bombardment is :—
Right Boundary¹—

T 13 a 5.0—T 7 d 35.10—T 8 a 1.5—T 2 d 1.6—T 3 a 25.90—
N 33 central—N 34 a 1.9.

Left Boundary¹—

S 4 d 9.1—S 5 a 9.1—M 35 d 9.8—M 36 a 20.85—N 25 a 2.1—
N 19 d 8.9.

Far Boundary²—

N 34 a 1.9—N 27 a 3.9—direct to N 19 d 8.9.

3. Within the above area as much of the hostile defensive works is to be destroyed as the time permits.

4. (a) Heavy howitzers will pay special attention to those portions of the TEA SUPPORT line which are still in good order, PINT TRENCH North of ALE ALLEY, the trench from T 1 c 9.3 to T 1 a 4.4 [Pt. 93—Pt. 44], the FLERS TRENCH from about T 2 c 9.6 to M 36 a 20.85 [its whole length within the corps boundaries] including its support line in M 36 a and b [between Flers and corps left boundary], the trenches in

¹ Practically coincides with limits of objectives detailed in Appendix 25, para. 2.

² See fourth objective (Red Line) on Map 1.

S 6 a and M 36 c [Fish Alley, Fat Trench and Fag Trench], the trench from M 36 c 2.7 to M 35 d 8.8 [Pt. 27-Pt. 88], the new trench M 36 a 7.6 to M 36 b 2.9 [Pt. 76-Pt. 29], any trenches round FLERS, especially those from M 36 d 9.7 to M 36 b 5.5 [Pt. 97-Pt. 55], the SUNKEN ROAD from M 36 b 5.5 to M 36 b 1.9 [Abbey Road] and GUN ALLEY from GAS ALLEY to road junction at T 1 b 1.2 [Pt. 12].

- (b) The double line in front of GUEUDECOURT will be registered by as many Siege Batteries as possible, and when a point is registered they will fire about 100 rounds to destroy lengths of the Trench.
- (c) The Village of FLERS will be well bombarded, especially by the 12" and 9.2" Howitzers. Heavy Howitzers will at times fire a few rounds into GUEUDECOURT.
- (d) Strong points and trench junctions will receive extra attention.
- (e) As many Siege Batteries as can be usefully employed are to be told off for counter-battery work. These Batteries are to destroy hostile batteries. They should be given tasks on the hostile trenches when they are not actually employed on counter-battery work.
- (f) 60 Pounder Batteries when not being used for counter-battery work will endeavour to cut gaps in the wire in front of the FLERS Trench and the GUEUDECOURT Trenches, but this must be secondary to their counter-battery work.
They should not try in too many places, but endeavour to make sure of a few good gaps.
- (g) By day and night, more especially the latter, the Heavy Artillery will search the more distant approaches, Villages and billets.

5. 4.5" Howitzers will deal especially with the communication Trenches. Short lengths of these Trenches should be selected and destroyed, but this should not be attempted North of FLERS VILLAGE.

In addition they should fire quick short bursts on trenches not at the time being bombarded by heavy howitzers and on all sunken roads and important road junctions, and destroy O.P's and machine gun emplacements.

FLERS Village should very often receive sharp bursts of 20 or 30 rounds and GUEUDECOURT at less frequent intervals.

6. 18 Pounders will cut wire and carry out day and night firing in accordance with No. 15 C.A. 10/253 dated 10th instant.¹

Short sharp bursts at very frequent intervals should be employed but no prolonged intense fire.

When searching roads, approaches and communication trenches, fire should always commence at a new place and the method of searching should be varied as much as possible.

H.E. should be used as well as Shrapnel, especially on villages and when sunken roads or trenches are more or less at right angles to the line of fire.

¹ This Instruction readjusted the zones of the three divisional artillery groups and allotted the following quantities of ammunition:

18 pdrs. . . .	7,500 rds. by day	9,500 by night
4.5" hows. . . .	2,200 " " "	1,500 " " "

7. The bombardment will be a steady one and every endeavour will be made to observe the fire.

12" Howitzers will fire from 50 to 70 rounds per gun per day.

9.2" & 8" Howitzers should average 40 rounds per battery per hour.

6" Howitzers 60 rounds per battery per hour.

4.5" Howitzers 80 rounds per battery per hour by day.

During the nights of the 13th/14th and 14th/15th September the ammunition fired by the 18 pounders will be increased 50%.

8. Night firing will take place between 6.30 P.M. and 6 A.M.

9. Acknowledge.

J. H. L. LAMBART, Lt.

for Major,

Issued at 5.45 P.M.

Staff Officer to B.G.R.A., XV Corps.

THE SOMME, 1916
BATTLE OF FLERS—COURCELETTE.
XV CORPS OPERATION ORDER No. 51.¹

12th September, 1916.

1. GINCHY and the enemy's trenches in T 14 c and d, T 15 c and Map 1. T 21 a and c have been captured by XIV Corps.²

The XV and III Corps have both advanced their lines.

2. (a) The Fourth Army is to attack the enemy's defences between the COMBLES RAVINE and MARTINPUICH on "Z" day with the object of seizing MORVAL, LES BOEUFs, GUEDECOURT and FLERS, and breaking through the enemy's system of defence.
(b) The Reserve Army is attacking simultaneously on the left of III Corps.
(c) The French are simultaneously undertaking offensive operations on the right of the XIV Corps.

3. The attack will be pushed home with the utmost vigour all along the line until the most distant objectives have been reached.

For the last 2½ months we have been gradually wearing down the enemy. His moral is shaken, he has few, if any, fresh reserves available, and there is every probability that a combined determined effort will result in a decisive victory.

4. The date of "Z" day and the hour of zero will be notified separately to all concerned.

5. (a) The attack will be carried out by the 14th, 41st and New Zealand Divisions.

(b) The objectives allotted to Divisions are shown in Appendix "A" attached hereto.³

6. The boundaries between Corps and Divisions are given in Appendix "B" attached hereto.³

7. At zero the infantry will leave our own front line for the attack of the first objective (green line).

At 1.00 hour they will leave the green line for the attack of the second objective (brown line).

8. The attack will be preceded by a bombardment of the hostile

¹ With subsequent amendments included.

² See the first footnote to Appendix 20.

³ Not reproduced.

defensive system which will take place daily from 6 A.M. to 6.30 P.M. commencing on 12th September.

The fire during the first half-hour of each day's bombardment will be brisk.

From 6.30 P.M. daily, night firing will commence and will be continued until 6.0 A.M.

The preliminary bombardment on "Z" day will be similar to that of previous days, there being no further increase of fire previous to zero.

9. (a) At zero an intense barrage of field artillery will be opened all along the line.
- (b) The infantry will leave their trenches and will advance straight on their first objective following the artillery barrage (which will creep in front of them at the rate of 50 yards a minute) as closely as possible.
- (c) No pause will be made on the line PILSEN LANE (*sic*)—TEA SUPPORT—CREST TRENCH, which will be dealt with by "mopping up" parties specially detailed.
- (d) The infantry in each portion of the line will assault the objective allotted to them the moment the barrage on that particular portion of the objective lifts.
- (e) On reaching the first objective the infantry will not advance further until 1.00 hour after zero.
- (f) The tanks will be despatched at such an hour that the leading tank of each group reaches its position on the first objective five minutes before the infantry arrive there. Lanes of at least 100 yards will be left in the barrage for the tanks. Each group of tanks will drop one tank to assist in dealing with the line PILSEN LANE (*sic*)—TEA SUPPORT—CREST TRENCH, and to rejoin the group on the green line.
- (g) At 1.00 hour after zero the barrage will start creeping back to the second objective. The infantry will advance with the tanks as laid down in the instructions issued in XV Corps No. 41/4 G.X., dated 11th September.¹
- (h) At 2.00 hours after zero the infantry will leave the brown line and advance for the capture of the third objective. The tanks will be pushed well ahead before the infantry advance at 2.00 hours.
- (i) At 4 hours 30 minutes after zero the infantry will leave the blue line and will advance for the capture of the fourth objective. The tanks will again be pushed well ahead before the infantry advance at 4 hours 30 minutes.

10. As soon as the final objective has been established, the tanks will be withdrawn to a position of assembly South of LONGUEVAL to replenish.²

Sketch A. 11. 21st Division will be in Corps Reserve. It will move to position BECOURT—FRICOURT—ALBERT on night "Y"/"Z" under orders which will be issued separately. It will be ready to move at 2 hours notice from zero on "Z" day.

¹ This Instruction placed the tanks under divisional command, divisions to allot assembly and departure points and also tank objectives.

² Amended on 14th Sept.: tanks to assemble under cover in Seven Dials vicinity in readiness to assist a further advance, eventually withdrawing to a position near Flers at nightfall to refill.

12. Corps Mounted Troops will move to BECORDEL on night "Y"/"Z" under orders which will be issued separately.

They will be ready to move at 2 hours notice from zero on "Z" day.

13. 3rd Squadron R.F.C. will detail (weather permitting) two contact aeroplanes to be continuously in the air from zero on "Z" day until dark, and one aeroplane to be up from 6.30 A.M. to 8.30 A.M. on the day after "Z" day.

14. Flares will be lit :—

(a) on reaching each objective.

(b) At 2 P.M. and 5 P.M. on "Z" day.

(c) At 7 A.M. on the day following "Z" day.

Red flares will be used.

15. A Staff Officer will visit Headquarters on "Y" day to synchronize watches as follows :—

Heavy Artillery	9.30 A.M.	3.30 P.M.
14th Division	10.0 A.M.	4.0 P.M.
New Zealand Division	10.20 A.M.	4.20 P.M.
41st Division	10.35 A.M.	4.35 P.M.

LOUIS VAUGHAN,
Brigadier-General,
General Staff.

Issued at 3 A.M.

TIME TABLE OF ATTACK.¹

Before Zero.	Tanks start as required in order to reach Map 1. SWITCH LINE at 0.25 minutes east of LONGUEVAL —FLERS ROAD, and at 0.15 minutes west of that road.
0.00 (Zero).	Infantry leave their trenches and advance close up to the barrage which will begin creeping back in front of them at 0.6 minutes. Creeping barrage will go back steadily at 50 yards per minute until it joins stationary barrage on first objective (green line).
0.15 minutes.	Tanks reach positions on first objective west of FLERS ROAD.
0.25 minutes.	Tanks reach positions on first objective east of FLERS ROAD.
(i) 0.20 minutes.	(i) Barrage lifts from green line west of FLERS ROAD.
(ii) 0.30 minutes.	(ii) Barrage lifts from green line east of FLERS ROAD—Infantry capture first objective as the barrage lifts in each case. Creeping barrage halts 300 yards beyond green line.
1 hour 00 minutes.	Infantry and tanks advance together behind creeping barrage. Creeping barrage goes back 100 yards in three minutes, and on arrival at FLERS LINE joins stationary barrage.
1 hour 25 minutes.	Barrage lifts from second objective of 14th and 41st Divisions. 14th and 41st Divisions capture brown line.

¹ Circulated also with divisional and brigade orders.

- 1 hour 30 minutes. Barrage lifts from second objective of New Zealand Division. New Zealand Division captures brown line.
- 1 hour 45 minutes. Covering barrage goes back to allow tanks to advance from brown line.
- 2 hours 00 minutes. Infantry advance, complete capture of FLERS, and establish the blue line.
- 4 hours 15 minutes. Covering barrage taken off to allow tanks to go forward.¹
- | | | |
|-----------------------|--|---|
| (i) 4 hrs. 30 min. | } barrage lifts from
GIRD TRENCH & GIRD
SUPPORT between | (i) Right boundary and Road N 32 b 38 [Point 38]. |
| (ii) 4 hrs. 55 min. | | (ii) Road N 32 b 38 and track N 26 c 45 [Point 45]. |
| (iii) 5 hours 00 min. | | (iii) Track N 26 c 45 and left boundary. |
- 5 hours 30 minutes. Bombardment of GUEUDECOURT ceases—Tanks push forward, and infantry complete capture of fourth objective.

¹ The barrage lifted in 3 stages from right to left to suit the varying distances which the tanks had to cover.

THE SOMME, 1916
BATTLE OF FLERS—COURCELETTE.
XV CORPS ARTILLERY OPERATION
ORDER No. 47.¹

18th September 1916.

1. At zero on "Z" Day the XVth Corps will attack. Map 1.
Time and date will be notified later.
2. The objectives of the XVth Corps are,
 - (i) PINT TRENCH from ALE ALLEY to TEA SUPPORT, TEA SUPPORT to COFFEE LANE and CREST TRENCH as far West as S 5 c 4.5.
 - (ii) SWITCH TRENCH [Switch Line] from T 8 a 20.45 [The Fork] to S 5 central [150 yards W. of Pt. 91].
 - (iii) GAP TRENCH from T 2 d 2.6 [500 yards E. of the Ginchy—Gueudecourt road]—FLERS Trench as far West as M 36 d 15.45—FAT TRENCH—Trench from M 36 c 4.3 to M 36 c 2.7—along Trench running West from M 36 c 2.7 to Road junction at M 35 d 9.8 [Pt. 88].
 - (iv) Road from Trench junction at N 32 d 90.15 [Gas Alley—Gird Trench] to N 31 b 4.0—the whole of FLERS Village and communication Trench (GROVE ALLEY) as far as M 30 d 5.5 [beyond Flers Support].
 - (v) The GUEUDECOURT Line from N 32 d 90.15 [N.W. of Gas Alley] to N 19 d 8.4 [N. of Seven Dials] and GUEUDECOURT Village.
3. Tanks will be employed in 4 Groups to assist the advance.
It will be necessary to make gaps in the barrage to avoid hitting the tanks.
4. The 18 Pounder Barrage will be divided into two parts,
 - (a) Stationary.
 - (b) Creeping.Two or three Batteries per Divisional Artillery will be employed in searching approaches and the more distant communication trenches, Headquarters and Roads.
Of the remainder three-quarters will be employed in the stationary barrage and the remaining quarter in the creeping barrage.

¹ Subsequent amendments are included.

5. (a) The stationary barrage will be put on the following lengths of Trench, the gaps being left for the tanks :—

A.

PINT TRENCH from ALE ALLEY to its junction with TEA SUPPORT—along TEA SUPPORT to T 7 a 31.56 [Pt. 35].

B.

TEA SUPPORT from T 7 a 16.62 to S 6 d 62.04 [Pt. 26—Pt. 60].

C.

TEA SUPPORT from S 6 d 42.10 to S 6 c 60.13 [Pt. 41—Pt. 61].

D.

New Trench from S 12 a 15.94 to S 5 d 23.52 [Pt. 19—Pt. 25].

E.

CREST TRENCH from S 5 d 05.52 to S 5 c 4.7 [Pt. 52—Pt. 47].

The groups of guns on these different lengths of trenches will be referred to later by the letters given above.

- (b) The creeping barrage will be opposite exactly the same lengths of Trenches, omitting 50 yards from each end. It will commence 200 yards nearer to our own front, except where our trenches and the hostile trenches are too close for it to be safe. Opposite those places it will be as near our own trenches as is safe.

G.O's.C. Divisional Artillery must ascertain from their Divisions the exact position of our front trenches.

6. (a) At 6 minutes after zero the creeping barrage will search back by lifts of 50 yards every minute until it arrives 300 yards beyond the SWITCH Line having crossed it between the following points :—

A.

T 8 a 0.6 and T 1 d 3.1 [Pt. 06—Pt. 31].

B.

T 1 c 8.3 and T 1 c 0.6 [Pt. 83—Pt. 06].

C.

S 6 d 5.6 and S 6 d 2.5 [Pt. 56—Pt. 25].

D.

S 6 c 6.6 and S 5 d 4.9 [Pt. 66—Pt. 49].

E.

S 5 central and S 5 a 9.1 [Pt. c (west of road)—Pt. 91].

NOTE.—The groups of guns told off for the creeping barrage must spread out, or contract, their frontage when crossing SWITCH TRENCH, but after they have arrived 300 yards

beyond it they must be so distributed that by sweeping they will cover the whole ground.

- (b) At 6 minutes after zero the stationary barrage will search back quickly by lifts of 50 yards until it arrives in the lengths of Switch Trench given below.

	<u>" A "</u> .	
T 8 a 12.53 to T 1 d 18.13.	<u>" B "</u> .	[This barrage extended to the corps boundaries and left narrower gaps than did the creeping barrage.]
T 1 d 00.25 to S 6 d 88.68.	<u>" C "</u> .	
S 6 d 63.64 to S 6 c 90.54.	<u>" D "</u> .	
S 6 c 68.60 to S 5 d 30.98.	<u>" E "</u> .	
S 5 b 1.0 to S 5 a 98.02.		

The portion of the stationary barrage West of the Flers Road will lift off Switch Trench at 20 minutes after zero and the portion East of the Flers Road at 30 minutes after zero and search back quickly until they arrive on the trenches running — T 2 c 8.6—T 1 a 4.3—M 36 d 15.45—M 36 c 4.3—M 36 c 2.7—M 35 d 9.8 [Gun Alley trenches, Flers Trench as far as Fag Trench, Fat Trench to Flag Lane].

The guns will be distributed as evenly as possible along this line of trenches and will sweep to cover the whole line.

7. (a) At one hour after zero the creeping barrage will search back by lifts of 50 yards every one and a half minutes until it arrives 300 yards beyond the line given in para 6 (b). The guns will sweep to cover the whole ground.
- (b) At 1 hour and 25 minutes after zero the guns of the stationary barrage firing East of Point M 36 d 4.0 [Pt. 40 in Flers Trench] and at one hour and 30 minutes those firing West of this point, will search back quickly by lifts of 50 yards until they reach a line running from N 32 d 8.3 to M 30 c 9.6 [the Blue Line] when the guns of the 7th and 41st Divisional Artilleries will lift direct into the GUEUDECOURT Lines between N 32 d 8.3 and N 19 d 8.4 [the corps boundaries].

They will search and sweep so as to cover both lines.

Those guns belonging to the 14th Divisional Artillery will be at the disposal of the G.O.C. and can be used for barraging the left flank or other objectives.

8. At one hour and 45 minutes after zero the creeping barrage will search back by 100 yards every minute until it arrives 300 yards beyond the line N 33 d 0.3—N 31 b 4.0—N 31 a 2.6—M 30 c 9.6 [the Blue Line].
9. (a) At 4 hours and 15 minutes after zero the creeping barrage will search back by lifts of 50 yards for 300 yards, when the

guns on this barrage will cease firing and may be used for G.O.'s.C. as required.

- (b) At 4 hours and 30 minutes after zero the guns of the stationary barrage East of N 32 b 2.6 [Pt. 26 in Gird Trench] will search back by 50 yards for 200 yards.

At 4 hours and 55 minutes after zero those between N 32 b 2.6 [Pt. 26] and N 26 c 3.7 [Pt. 37] and at 5 hours after zero those firing North West of N 26 c 3.7 [Pt. 37] will do the same.

In each case a large proportion of the guns should be turned on to GUEUDECOURT Village and sunken roads adjacent to it.

10. At 5 hours and 30 minutes after zero fire on GUEUDECOURT will cease.

11. Barrages will be arranged by G.O.'s.C. Divisional Artilleries to cover the front of their own Divisions.

12. G.O.'s.C. Divisional Artilleries will throughout the operations arrange for their 4.5" Howitzers to join in the bombardments, commencing half an hour before zero.

4.5"s must lift off their objectives at the same time that the Heavy Howitzers do so.

13. Rates of Fire—18 Pounders.

STATIONARY BARRAGE.

Zero to 0.12.	—3 rounds per gun per minute.
0.12 to 1 hour	—1½ rounds " " " "
1 hour to 1 hr 45 mns.	—1 round " " " "
1 hour 45 mns to 4 hours	—1 " " " " 4 minutes.
4 hrs to 5 hrs 30 mns.	—1 " " " " 1½ "

CREEPING BARRAGE.

Zero to 0.12.	—3 rounds per gun per minute.
0.12 to 1 hour.	—2 " " " " "
1 hr to 2 hrs 30 mns	—1 round " " " "
2 hrs 30 mns to }	1 " " " " 3 minutes.
4 hrs 30 mins }	
4 hours 30 mins to }	1 " " " " 1 minute.
4 hours 36 mns }	

14. The bombardment by the Heavy Artillery and 4.5" Howitzers will commence at 30 minutes before zero.

15. The 12" Howitzers and 2 Heavy Howitzer batteries will be detailed to bombard FLERS Village and the dug-outs in the sunken road North West of FLERS. They will thoroughly search the whole Village.

The remainder of the Heavy Howitzers will be concentrated one third on the PINT TRENCH—TEA SUPPORT—CREST TRENCH line and two thirds on the SWITCH Line.

From 7 minutes before zero howitzers on the Tea Support line and from 2 minutes before zero, those on the Switch Line will leave the same gaps for the tanks that are laid down for the Field Artillery [stationary barrage]. Up to this time they will pay particular attention to these gaps.

16. At 3 minutes after zero those on the TEA SUPPORT Line will lift on to the FLERS Line and group of Trenches in S 6 a and M 36 c [Fat, Fir, Fag and Ferret Trenches, and Fish Alley].

17. At 15 minutes after zero howitzers on Switch Trench west of the Flers Road and at 25 minutes after zero those on Switch Trench east of the Flers Road will lift on to the Flers line except two Batteries which will lift on to Flers village.

18. At one hour and 20 minutes after zero Howitzers on the FLERS TRENCH East of M 36 d 40 [Pt. 40] and those on the group of Trenches in S 6 a and M 36 c [Fat, Fir, Fag and Ferret Trenches, and Fish Alley] will lift, two Batteries on to the GUN ALLEY Trenches, one Battery on to the GUEUDECOURT Line and the remainder on to FLERS Village.

19. At one hour and 25 minutes after zero Howitzers on the FLERS Line between M 36 d 4.0 [Pt. 40] and M 36 d 1.7 [Pt. 17] will lift on to the North West part of FLERS and the sunken roads North West of the Village, except one battery which will lift direct to the GUEUDE- COURT Line.

20. At one hour and 45 minutes after zero Howitzers on the Western portion of the FLERS Line will search back quickly by lifts of 50 yards until they cross the SUNKEN Road North West of FLERS when they will lift.

Those on FLERS Village will search back quickly by lifts of 50 yards until they are clear of the Orchards North of FLERS when they will lift.

Those on GUN ALLEY will lift direct.

The 12" Howitzers will lift direct on to GUEUDECOURT Village. Of the remainder, 2-6" Howitzer Batteries will search the Trenches and Sunken roads North of FLERS. 1 Heavy Howitzer Battery will turn on to GUEUDECOURT Village and the rest on to the GUEUDECOURT Lines.

21. At 4 hours and 15 minutes after zero the two 6" Howitzer Batteries on the Trenches North of FLERS will lift on to the GUEUDE- COURT Line North of N 26 c 3.7 [Pt. 37].

Howitzers which are firing East of N 32 b 2.6 [Pt. 26] will turn on to GUEUDECOURT and Sunken roads South and East of the Village.

22. At 4 hours and 50 minutes after zero Howitzers on the GUEUDE- COURT Trenches between N 32 b 2.6 [Pt. 26] and N 26 a 3.0 [Pt. 30] will lift on to GUEUDECOURT and Sunken Road West of the Village.

23. At 4 hours and 55 minutes after zero Howitzers on the GUEUDE- COURT Trenches North of N 26 a 3.0 [Pt. 30] will lift on to GUEUDE- COURT except two Batteries which will lift on to the GUEUDECOURT Trenches between N 19 d 6.8 and N 19 a 4.1 [Pt. 68 to a further 600 yds. beyond corps boundary].

24. At 5 hours and 25 minutes after zero all Howitzers on GUEUDE- COURT will cease firing.

Those on the Trenches between N 19 d 6.8 and N 19 a 4.1 [Pt. 68 to a further 600 yds. beyond corps boundary] will continue until 6 hours and 30 minutes after zero.

25. Rates of Fire for Heavy Howitzers.

12"—As many rounds as possible.

From 30 minutes before zero to 30 minutes after zero :

9.2" & 8"—1 round per gun per 2 minutes.

6"—1 round per gun per 1½ minutes.

From 30 minutes after zero until Howitzers lift on to the GUEUDE-COURT Line :

9.2" & 8"—1 round per gun per 3 minutes.

6"—1 round per gun per 2 minutes.

After Howitzers arrive on the GUEUDE-COURT Trenches or Village, and for the 6" Batteries searching the North of FLERS, up till 4 hours and 30 minutes after zero :

9.2" & 8"—1 round per gun per 5 minutes.

6"—1 round per gun per 3 minutes.

From 4 hours and 30 minutes after zero to 5 hours and 30 minutes after zero :

9.2" & 8"—1 round per gun per 3 minutes.

6"—1 round per gun per 1½ minutes.

26. Counter-battery work will be carried on very actively from 30 minutes before zero onwards.

As many Howitzers as can be usefully employed on counter-battery work are to be used for it.

During the night before "Z" Day any gas shell for heavy guns should be used on groups of Hostile Batteries.

27. Distant approaches, villages and Billets will be shelled at very frequent intervals.

28. The G.O.C. Heavy Artillery will detail one 60 pdr. Battery and one 6-inch Howitzer Battery which in the event of the Cavalry Corps being launched will be placed at the disposal of the Cavalry Corps.

29. Distant Villages can be shelled at any time as the Cavalry will not enter them.

30. Attention is called to the necessity of pushing forward guns as early as possible in support of our Infantry. It may be necessary to bring Batteries into the open if the Infantry cannot be properly supported otherwise.

The G.O.C. 14th Divisional Artillery will have to pay special attention to his left flank.

31. Great care is necessary in working out the barrages and making sure that all Officers thoroughly understand them, so that damage to the tanks may be avoided.

32. Watches should be carefully synchronized.

33. Liaison Officers should be sent to Infantry Brigade Headquarters ; if any are sent with Battalions they should not go further than the Battalion Headquarters.

34. No dates or hours are to be sent over the telephone.

35. Acknowledge.

J. M. R. HARRISON,
Major,
Staff Officer to B.G.R.A., XV Corps.

THE SOMME, 1916

BATTLE OF FLERS—COURCELETTE.

41ST DIVISION ORDER No. 42.¹

13/9/16.

1. The Fourth Army, in co-operation with the Reserve Army and Map 1, the French is to attack and capture the enemy's system of defences Sketch A. up to and including the line MORVAL—LES BOEUFs—GUEUDECOURT—HIGH WOOD on the 15th September ("Z" Day).

The attack will be pushed home with the utmost vigour all along the line until the most distant objectives have been reached. For the last 2½ months we have been gradually wearing down the enemy. His moral is shaken, he has few, if any, fresh Reserves available and there is every probability that a combined determined effort will result in a decisive victory.

The rôle of the XV Corps is to capture the enemy's system of defences on its front (including FLERS) up to and including the line N 33 central—N.E. edge of GUEUDECOURT—N 20 d 5.0—N 20 c. 3.6—road junction N 25 a 9.7 to M 30 c 5.0 [Red Line].

The Operations will be divided into stages as shewn by the coloured lines on attached map.²

The 41st Division will be in the Centre with the 14th Division on its Right and the New Zealand Division on its Left.

2. The Divisional Commander intends to attack in four (4) stages with the 124th and 122nd Infantry Brigades in Front Line (124th Inf. Bde on the Right) each with 1 Sec. R.E. from their affiliated Field Companies R.E. attached, and capture successively on the Divisional Front :—

1st Objective (green line).

The enemy's trenches 800 yards S. of FLERS (SWITCH LINE), from junction with COCOA LANE (excl.) to junction with COFFEE LANE (excl.). No halt will be made in TEA Support Trench but arrangements must be made to leave special parties to mop it up.

2nd Objective (brown line).

Enemy's trenches running S.E., on the S.W. and S. sides of FLERS (FLERS LINE) from T 1 b 1.2 [Pt. 12] to M 36 d 3.4 (Fag Trench junction).

¹ Subsequent amendments are included.

² Not reproduced.

3rd Objective (blue line).

The Village of FLERS and the line Cross Roads N 31 b 4.0 [S. of Hog's Head]—N. edge of FLERS to Road junction N 31 a 2.5 [N.E. corner of Flers] (excl.).

4th Objective (red line).

Establish line N 20 d 5.0 (excl.) [N. end of Gueudecourt]—N 20 c 3.6—Road junction N 25 b 0.6. [Ligny road].

The objectives in several cases consist of a double line of Trenches. Where this is the case the troops will be given the Trench furthest away from us as their Objective, steps being taken to deal adequately with the intermediate trench.

The 123rd Infantry Brigade with 1 Sec. R.E. from its affiliated Field Company R.E. attached, will be in Reserve.

ASSEMBLY. 3. The Infantry Brigades, R.E., Pioneer Battn and Field Ambulances, will be in position in their assembly areas by 11 P.M. 14th instant, ready to attack next morning.

124th Infantry Brigade and 1 Sec. 237th Fd. Co. R.E. on right.

122nd Infantry Brigade and 1 Sec. 228th Fd. Co. R.E. on left.

123rd Infantry Brigade and 1 Sec. 238rd Fd. Co. R.E. in Divisional Reserve.

122nd and 124th Infantry Brigades will be clear of the area S. of YORK Trench [500 yards S.W. of Longueval] by 9 P.M. 14th inst. Tapes, boards prepared with luminous paint, etc., must be arranged to guide battalions to their assembly trenches and to mark the line of their deployment.

Battalions will take up with them all the S.A.A., grenades, Lewis, Vickers and Stokes Gun Ammunition, S.O.S. Rockets, Flares, Tools, R.E. Stores, food and water required.

Battalions marching up from in rear of the line should pick these up from their respective brigade dumps.

APPROACH 4. Approach Avenues are allotted as follows :—
AVENUES.

124th Inf. Bde.—FLARE LANE ¹

122nd Inf. Bde.—MILK LANE ¹

123rd Inf. Bde.—FLARE AND MILK LANES

Divl. Troops —FLARE AND MILK LANES

DIVIDING LINES. 5. (a) Dividing Line between the right of 124th Inf. Bde. and the Left Brigade of the 14th Divn will be :—

The line Pt. S 22 c 9.2—S 17 d 9.8—thence COCOA LANE to its junction with SWITCH LINE (incl. to 14th Divn.)—Road junction T 1 b 1.2 [Pt. 12] (incl. to 14th Divn.)—Road junction N 31 b 4.0 [S. of Hog's Head] (incl. to 41st Divn.)—Strong Pt. N 31 b 5.2 (incl. to 41st Divn.)—Road junction N 26 c 4.4 (incl. to 14th Divn.)—Road junction N 26 a 9.1 (incl. to 14th Divn.). All houses and gardens of GUEUDECOURT (incl. to 14th Divn.)—Road junction N 21 c 0.6 (incl. to 14th Divn. [i.e. N.E. to Gueudecourt, thence round west side of village and along N. edge to Beaulencourt road.]

(b) Dividing Line between 124th and 122nd Infantry Brigades :—

S 22 c 8.6 to Cross Roads S 17 b 3.4 inclusive of FLARE LANE—thence via LONGUEVAL—FLERS Road to its junction at S 6 b 9.3—

¹ Communication trenches—Flare Lane on right, via Longueval and inside W. edge of Delville Wood; Milk Lane on left, W. of Longueval.

T 1 a 4.8—N 31 c 85.45—N 31 b 15.15—N 31 b 2.6—thence along track to N 20 c 4.4 (all inclusive to 124th Inf. Bde.) [Longueval—Flers road, along E. edge of Flers, thence along road and track to Seven Dials].

(c) Dividing Line between 122nd Inf. Bde. and the Right Brigade New Zealand Division :—

S 21 d 8.7—Junction of tracks at S 16 d 1.6—thence to S 11 c 0.4—S 11 d 0.8—Junction of PEACH Trench and TEA Trench (incl. to 41st Divn.)—COFFEE LANE (incl. to New Zealand Division)—M 36 d 3.3—Road junction at M 36 b 5.0 (incl. to New Zealand Divn.)—Cross roads at N 31 a 2.5 (incl. to New Zealand Divn.)—N 26 b 0.6 (Track inclusive to New Zealand Divn. [Trench junctions Coffee Lane—Switch Line, Fat Trench—Flers Trench, thence round W. side of Flers and up Ligny road.]

6. The Right of the 122nd Infantry Brigade will direct. General DIRECTING
direction of attack 28° true bearing. FLANK.

7. The Artillery bombardment of the enemy's defensive system ARTILLERY
commenced on the 12th instant.

The Divisional Artillery will form creeping barrages as shown in Table 1 attached.¹ The attacking troops will advance immediately behind these barrages and not more than 50 yards distance between waves.

The C.R.A. will make the necessary arrangements for the close support of the Infantry for moving forward his guns when ordered and for the defence of the ground gained.

Artillery Observation Posts will be established from which to observe the various objectives and the ground beyond.

8. At "Zero" hour (which will be notified later). The leading HOUR OF
waves of the Infantry will be in position as close as possible to our ASSAULT.
Artillery barrage. As each wave moves forward its place will be taken by the next troops in rear and so on backwards.

The 123rd Infantry Brigade will not move from the position of Assembly without orders from the Divisional Commander. The B.G.C. 123rd Inf. Bde. will keep in touch with the course of events so as to anticipate an order for the advance.

9. Ten tanks Heavy Section M.G. Corps will co-operate in the TANKS.
attack and will be in position in rear of our front line trenches by 4 A.M. 15th instant.

Those tanks will act in accordance with the special orders issued to them and will usually precede the Infantry. Their rôle is to destroy the hostile machine guns and Strong Points and clear the way for the Infantry.

The infantry must follow behind the tanks and should any strong point succeed in holding up the Infantry they will call for a tank to assist them. The signal will be the signal for "Enemy in sight" with the rifle.

An escort of 1 N.C.O. and 10 men will be detailed to remain with each tank, and should the tanks get in rear of the Infantry or for any reason be obliged to withdraw across ground over which Infantry has passed, the escort will remove any wounded which happen to lie in the path of the tank.

¹ Not reproduced.

The escort will also protect the tank from close assault by the hostile Infantry, or from attack by explosive charges.

The above escorts will not join the tanks until after they reach the first objective (green line). Should the tanks become out of action at any time and be unable to advance (especially on the advance from FLERS Trench to attack the village, when the tanks are supposed to precede the Infantry by 15 minutes) the Infantry are on no account to wait for them, but will advance at the hour arranged for the tanks in order that they may derive the benefit of the Artillery barrage.

This necessary action must be decided on by the Officers in command of troops on the spot.

As soon as the final objective has been established the tanks will be withdrawn to a position of Assembly South of LONGUEVAL to replenish.¹

The following signals will be used from tanks to Infantry and Aircraft :—

Flag Signals

Red Flag = Out of action.

Green Flag = Am on objective.

Other flags are inter-tank signals.

Lamp Signals

Series of T's = Out of action.

Series of H's = Am on objective.

A proportion of tanks will carry pigeons. O.C. "D" Coy Heavy Section M.G. Corps will demand the birds from the A.D.A.S. 15th Corps.

Infantry must not wait for tanks that get behind Time Table. Attention is called to "Instructions for use of tanks" copy attached.

- | | |
|---------------------------------------|---|
| OBJECTIVES
AND RATE
OF ADVANCE. | 10. The successive objectives are given in paragraph 2. The advance will be carried out in accordance with the attached "Time Table". ² The 122nd Infantry Brigade will capture FLERS. |
| CLEARING
UP. | 11. Arrangements will be made to mop up all trenches and any dug-outs in the trenches or in FLERS and deal with any of the enemy in them. |
| CONSOLIDA-
TION. | 12. Each objective will be consolidated as soon as possible after its capture and made secure against counter-attack. |
| COMMUNICA-
TION
TRENCHES. | 13. Special parties to dig communication between our front line and the German line will be detailed beforehand. The position of the trench to be dug by each party will be selected before-hand and a sap dug forward to facilitate its construction. |
| STRONG
POINTS. | 14. Strong points will be constructed at the following places by the Infantry assisted by some R.E. by 124th Infantry Brigade at :—
Junction of trenches T 7 a 2.6 [Tea Support—Cocoa Lane]
S 6 d 72.67 } [In Switch Line, Pt. 93 and Caddy Lane junction]
T 1 c 95.25 }
T 1 a 2.5 [Trench junction S.E. corner of Flers] |

¹ Amended 14th Sept. : tanks to assemble under cover in Seven Dials vicinity in readiness to assist a further advance, eventually withdrawing to a position near Flers at nightfall to refill.

² Not reproduced.

N 31 b 19.50 [W. end of Flea Trench]

N 31 b 5.3 [Hog's Head]

N 26 a 5.8 [Pt. 58 in Gird Support]

By 122nd Inf. Bde. at :—

S 6 d 0.5 }
S 6 c 75.55 } [In Switch Line]
S 6 b 80.85 [Flers Trench on S. edge of village]
T 1 a 4.9 }
N 31 c 6.5 } [Along E. edge of Flers]
N 31 a 8.4 }
N 31 c 00.55 } [On W. edge of Flers]
N 31 a 30.68 }

At 2 Strong Points N. of FLERS

N 25 b 25.75 [In Grove Alley, S.W. of Seven Dials]

Specially organised parties will be detailed with the definite task of constructing these Strong Points. The Strong Points round FLERS will be organised so as to defend the perimeter of the village with flanking fire.

All strong points will be garrisoned by a platoon of not less than 25 rifles and a Vickers or Lewis Gun.

As soon as these Strong Points have been constructed and garrisoned, the troops occupying the two first German trenches and FLERS Village will re-organize, ready to advance when ordered or as soon as support is required in front.

15. The 122nd and 124th Inf. Bdes will arrange to organise carrying CARRYING parties to bring up R.E. stores required for consolidating the above PARTIES. mentioned Strong Points.

16. Indirect covering fire by Stokes, Vickers & Lewis Guns (enfilade STOKES if possible) will be carried out to assist the infantry, and ammunition GUNS, pushed forward, as soon as the infantry have gained the line of each M.G.'S, stage. At least 50% of Stokes Guns will be kept in reserve behind the LEWIS original place of assembly. GUNS.

Special Lewis Gun parties are to be detailed to push beyond the line gained and seize any tactical points not occupied by the enemy.

17. Every man will carry 2 MILLS bombs in his pockets. These are BOMBS. to be looked upon as a reserve for use of the Bombing Squads and are to be dumped and collected in each line gained. They will not be thrown by the men carrying them. Mopping up parties will take with them a supply of "P" bombs for the purpose of clearing dug-outs.

18. Arrangements must be made to take forward S.O.S. rockets. ROCKETS.

19. Every Officer and N.C.O. and 50 men per Coy will carry two red COMMUNI-flares. These are to be lighted in the front line only, at intervals of CATION 20 yards, on gaining the line of each objective, as soon as the contact WITH aeroplane appears (or calls for flares on the KLAXON Horn) and AERO-PLANES. again at 2 P.M. and 5 P.M. on Z day (15th Sept.) and at 7 A.M. on the day following Z day (16th Sept.)

Vigilant mirrors are to be attached to the backs of the coats of a proportion of the men.

Panels and lamps will also be frequently used to report the situation.

Inter-communication.

Infantry Brigades will ensure that cable lines are run out to the captured positions as soon as the infantry have taken them. Every endeavour must be made to bury those lines as soon as this is feasible.

**VISUAL
SIGNAL-
LING AND
RUNNERS.**

20. Full use is to be made of visual signalling and runners, which may become the only available means of communication.

(a) Visual Signalling.

Visual Stations, where messages can be handed in for despatch, will be installed at the following points :—

S 18 c 1.9 [Longueval]

S 16 b 5.2 [Near Windmill W. of Longueval]

S 16 d 6.1 [S.W. of Longueval]

S 27 b 3.0 [Montauban]

POMMIERS REDOUBT

As the advance progresses it is hoped to establish visual stations about :—

S 12 a 6.2 [In front of N. point of Delville Wood]

S 6 d 9.3 [Main road midway between Longueval and Flers]

S 6 c Central [W. of preceding point]

S 5 c 2.8 [E. of E. corner of High Wood]

T 1 a 6.7 [S.E. side of Flers]

M 36 d Central [W. side of Flers]

b) Runners

To get good results from Runners, of which a large number will be required, they must be carefully organised into relays, each relay working between posts which should give protection from fire.

The routes between the posts should be definitely laid down and marked and the posts should bear a distinctive mark.

Runner relay posts have been constructed at intervals of about 300 yards in FLARE and MILK LANES.

If other means of communication fail, runners must be employed at whatever cost, and will be sent to POMMIERS REDOUBT, where an Officer from Divl. H.Q. will be stationed in order to transmit such messages by telegraph to Divl. H.Q.

PIGEONS.

21. Pigeons. Each Battalion in front line will be provided with two pigeons and each of the advanced Inf. Bdes with four pigeons daily.

The birds are only to be released for urgent messages, if other means of communication fail and are to be regarded as a reserve.

WIRELESS.

22. A Wireless Station will be installed about S 16 d 7 1 [S.W. of Longueval], near the 122nd and 124th Inf. Bdes H.Q., and will keep communication with the Corps set at POMMIERS REDOUBT.

**DIVL.
OBSERVA-
TION
OFFICER.**

23. The Divl Observation Officer will be at one of the Artillery F.O.O's dug-outs by 5 A.M., 15th inst., and will report on the course of the action every hour. Important events at once.

**R.E. AND
PIONEER
BN.**

24. The R.E. Field Companies (less 1 Section per Coy) and 19th Middx R. (Pioneers) will assemble in MONTAUBAN ALLEY [N.W. side of Montauban] and the Western part of MONTAUBAN by 5 A.M., 15th inst., and will be ready to move forward to assist in the consolidation of the captured trenches and the construction of the Strong Points

mentioned in para. 14 and the repair of the roads in the forward area.

25. Advanced Dressing and Collecting Stations will be established as MEDICAL follows :—

Advanced Dressing Station—The QUARRY [N. of Bernafay Wood].
Divl Collecting Station —F 6 a 2 0, MAMETZ—MONTAUBAN Road.

26. The positions and contents of Dumps are shown in Table 3 DUMPS. attached.¹

27. Refilling on the 14th inst. will be as at present, viz., 3 Infantry SUPPLIES. Bde Groups at FRICOURT OLD STATION, R.A. at E 10 b 1 8 [S. of Albert].

28. Vide special instructions issued to all units on 12-9-16, attached.² BATTLE STOPS.

29. Units will make their own arrangements for escorting prisoners PRISONERS back to the Corps Cage at F 6 c [E. of Mametz]. An escort of 10% OF WAR. is sufficient.

30. The 1st Line Transport of units will be located as follows :—
3 Inf. Bdes at F 2 c and d [W. of Fricourt]. 1ST LINE
R.E. Companies and Pioneers at F 9 a and c [S. of Fricourt]. TRANS-
R.A. at E 11 central [Midway between Albert—Méaulte]. PORT.
Train at E 10 b [S.E. of Albert].

31. Watches will be synchronized by O.C. Signal Coy Divl H.Q. at WATCHES. 10.45 A.M., and 4.45 P.M. on the 14th inst. and at 5 A.M. on the 15th instant.

32. The situation will be telegraphed to Divl H.Q. at the end of REPORTS. every hour after zero, in addition to any important events, e.g., the capture of an objective, which will be reported as soon as known. If the situation is unknown it will be so stated.

33. Acknowledge.

B. L. ANLEY,
Lt.-Colonel, G.S.

Issued at 2 P.M.

¹ Not reproduced. The Divisional Dump was by the railway at Bécordel—Bécourt; the brigade dumps S. of Longueval on Bernafay Wood road and on road S.W. of Longueval.

² Not reproduced. The collecting post for battle stragglers was on the Mametz—Montauban road.

(1) MOVEMENT TO POSITIONS OF DEPLOYMENT.

6.— In the early morning, 14th inst., guides and tank Officers will reconnoitre the routes to be taken to the positions of deployment, which will be communicated separately. Guides will study the ground between these points, on the morning of the 13th inst., so as to be able to supply tank Officers with all available information. The route detailed will be marked by notice boards and tape. Com-

¹ By the road-side midway between Longueval and Bazentin le Grand.

pass bearing will be taken, and arrangements made for blocking all side tracks not required.

7.— Traffic posts from the parties of guides will be established where the routes of the different Groups of Tanks diverge.

8.— O.C., "D" Coy, Heavy Section, Machine Gun Corps, will send orderlies to Advanced Left Brigade H.Q. in YORK ALLEY, about S 16 d 3 2 [W. of Longueval], for purposes of communication.

9.— Report will be rendered to Divl H.Q. when movement is complete.

10.— Acknowledge.

(2) IN OFFENSIVE.

1. Ten Tanks have been allotted to 41st Division. These will be divided into Groups, as follows :—

Map 1.

DISTRIBUTION.

Group C.—1 Tank : (HOTCHKISS).¹

Group D.—3 Tanks : (2 M.G. and 1 HOTCHKISS).

Group E.—3 Tanks : (2 M.G. and 1 HOTCHKISS).

Group F.—3 Tanks : (1 M.G. and 2 HOTCHKISS).

2. The Tanks will move from their position of concentration, F 28 central [The Loop], to their position of assembly in GREEN DUMP VALLEY, S 16 c and 22 a on night 13th/14th inst., where they will remain during the day 14th. Instructions have been issued as regards their concealment from aerial observation.

MOVE TO POSITION OF

3. On the night 14th/15th, Tanks will move from their position of assembly to their positions of deployment, as follows :—

MOVE TO POSITION OF DEPLOYMENT.

Group C . . . — S 12 c 1 8
Group D . . . — S 11 d 8 5
Groups E & F . . . — S 11 d 3 2

[See Map 1].

Route.

Track junction S 16 d 1 6—cross roads S 17 a 4 2—cross roads S 17 b 4 4. [Into centre of Longueval by road from S.W., thence N. up main street.]

Tanks to be in position by 4 A.M. Instructions for guides have been issued separately.

4. Tanks will remain at the position of deployment until such time as they advance to cross our front line in accordance with attached Time Table of Attack. Care will be taken that the advance of the Groups of Tanks is carefully timed so as to cross our front line and reach the first and other objectives as per programme.

ADVANCE TO FRONT LINE.

Gaps 100 yards wide will be left in the Creeping Barrage for the passage of Tanks. Stationary barrages will lift off their objectives before Tanks arrive.

5. The objectives, routes, and responsibility for dealing with Strong Points encountered by each Group of Tanks will be as follows—

OBJECTIVES AND ROUTES.²

GROUP C.

SWITCH TRENCH—junction of GATE LANE and SWITCH TRENCH (T 1 b 1 5½)—Point in GATE LANE at T 1 b 6 8—trenches on each

¹ M.G.=female, Hotchkiss=male.

² See Map 1.

side of end of sunken road at T 1 b 2 2—thence under orders to be issued by G.O.C., 14th Division.

GROUP D.

TEA SUPPORT (where 1 Tank M.G. will be dropped until arrival of infantry)—SWITCH TRENCH—FLERS TRENCH—sunken road at T 1 a 3 5—thence to follow the sunken ditch to the N.E. corner of FLERS Village, N 31 a 8 2—HOGS HEAD Strong Point—thence under orders of 41st Division.

GROUP E.

TEA TRENCH moving by route as indicated for F Group as far as SWITCH TRENCH—sunken road S 6 d 2 9—Pt. S 6 b 8 1—thence to FLERS TRENCH at S 8 b 9 7 through centre road to FLERS VILLAGE to Northern exit—N 31 a 3 7—Box Strong Point—GIRD TRENCH at T 26 a 5 0—thence as directed by G.O.C. 14th Div.

GROUP F.

TEA SUPPORT TRENCH (where 1 HOTCHKISS will be dropped)—SWITCH TRENCH—junction of FLERS TRENCH S 6 b 7 7—Pt. N 31 c 0 7—M 36 b 6 1—N 25 c 3 3—N 26 a 1 9—N 26 a 8 8—N 20 d 4 2.

ACTION ON 6. The two tanks detailed to stay on the TEA SUPPORT Line will deal with the German machine guns and Advanced Posts until the arrival of the infantry, when they will advance in line with them, overtaking their Groups at the SWITCH TRENCH.

ACTION AT 7. Tanks will advance to take the SWITCH TRENCH at a time so calculated as to arrive 5 minutes before the infantry will reach that Trench. They will remain until it is occupied by the infantry, when they will advance 150 yards and thence conform to the Time Table.

ACTION AT 8. During the advance to the 2nd Objective from SWITCH to FLERS TRENCH along the routes chosen, they will make every effort to deal with sunken roads and machine gun emplacements, as far as FLERS TRENCH. Should any Strong Point succeed in holding up the infantry, the Tanks will immediately proceed to deal with it. The signal with the rifle "Enemy in sight" will be used to indicate to Tanks that assistance is required. In this advance Tanks will proceed in conjunction with the Infantry, making every endeavour to keep up in line with them.

ATTACK ON 9. From FLERS TRENCH forward, the Tanks will again precede infantry by the routes laid down, and will do all possible damage to the enemy by destroying machine gun emplacements and other defences. "E" Group will detach one Tank to remain at the road bend N 31 c 2 3 [Pt. 23], and one Tank by the Church at N 31 c 3 6, while one Tank will proceed to the road junction at N 31 a 3 2 [Pt. 32]. Tanks will remain in these positions until the arrival of the infantry, who move as per Time Table, when they will precede them through the Village; the Advanced Tanks moving forward as soon as they see the one behind them approaching.

"D" and "F" Groups will act similarly.

"D" Group will send one Tank to N 31 a 8 2 [Pt. 82], one Tank to N 31 c 8 4 [Pt. 84], and one Tank to T 1 a 4 8.

" F " Group will send one Tank to M 36 d 95 65 [Pt. 97] and one Tank to M 36 b 6 1 [Pt. 61], and one to M 36 b 95 35 [Pt. 94].

10. According to Time Table, the Tanks will again proceed by routes ADVANCE laid down, in advance of infantry, towards the final objective, dealing ON FINAL on the way with the Strong Points named. OBJECT-

11. Instructions for escort, signals, refilling, etc., are given in para. 9 IVE. of 41st Division Order No. 42.¹

12. Every endeavour must be made by Tanks to crush down any unbroken wire encountered, so as to leave a passage for the Infantry.

13. In attacking a trench line a proportion of each group of Tanks should cross to the far (enemy's) side, while the remainder stay on the near side of the objective.

H. M. WILSON,
Major, G.S.

12-9-16.

¹ Appendix 26.

THE SOMME, 1916

BATTLE OF FLERS—COURCELETTE.

122ND INFANTRY BRIGADE ORDER No. 40

Map 1,
Sketch A.
SITUA-
TION.

1. The Fourth Army in co-operation with the Reserve Army and the French is to attack and capture the enemy's system of defences up to and including the line MORVAL—LES BOEUFs—GUEUDECOURT—HIGH WOOD. The attack will be pushed home with the utmost vigour all along the line. The enemy's moral is known to be shaken, he has few if any fresh Reserves, and it is considered that a combined and determined offensive will result in a decisive Victory.

The 41st Division will attack as the Centre of the XVth Corps attack, and will have on its right the 14th Division, and on its left, the New Zealand Division.

The 122nd Infantry Brigade will be on the left of the 41st Division, with 124th Infantry Brigade on our right, and the New Zealand Brigade on our left.

The 123rd Infantry Brigade will be in Divisional Reserve.

IN-
TENTION.

2. The 122nd Infantry Brigade will attack in (4) four stages with 15th Hampshire Regiment and 18th King's Royal Rifle Corps in Front Line and 11th Royal West Kent Regiment and 12th East Surrey Regiment in Second Line.

The attack on these 4 objectives will be carried out on the timings shown on the attached time table.¹

ASSEMBLY.

3. The Units of 122nd Infantry Brigade will assemble in their assembly area in accordance with the attached assembly table, ready to attack next morning.

Units will indent on the Brigade Dump (Known as the GREEN DUMP)² for the S.A.A., Grenades, Lewis, Vickers and Stokes Gun ammunition, S.O.S. Rockets, Flares, Tools, R.E. Stores, Food and water, they require.

APPROACH
AVENUE.

4. MILK LANE and FLARE LANE³ are the only 2 approach avenues allotted to the 41st Division.

MILK LANE is allotted to 122nd Infantry Brigade.

FLARE LANE is allotted to 124th Infantry Brigade.

FORMA-
TIONS.

5. The order of battle will be as follows :—

First Line. 15th Hampshire Regiment on Right.
18th Kings Royal Rifle Corps on Left.

¹ Not reproduced.

² By the roadside midway between Longueval and Bazentin le Grand.

³ See Appendix 26, para. 4.

Second Line. 11th Royal West Kent Regiment on Right.
12th East Surrey Regiment on Left.

Battalions will advance in four waves at 70 yards distance ; each battalion on a four company front.

The Second line preferably in small columns.

6. The right of 15th Hampshire Regiment will direct.

DIRECTING
FLANK.
DIVIDING
LINES.

7. Between 122nd and 124th Infantry Brigades.

[As in Appendix 26 para. 5 (b).]

Between 122nd and New Zealand Infantry Brigades.

[As in Appendix 26 para. 5 (c).]

8. The Artillery bombardment of the enemy's defensive system commenced on 12th September.

Our Artillery will form creeping barrages. The attacking troops will advance immediately behind these barrages, and not more than 70 yards distance between waves.

An Artillery Liaison Officer will be with each Battalion Headquarters.

9. At Zero hour which will be notified later, the leading waves of battalions will be in position as close as possible to the creeping barrage. As each wave moves forward, its place will be taken up by the next troops in rear, and so on backwards.

ASSAULT
AND
OBJECT-
IVES.

FIRST OBJECTIVE. GREEN LINE.

Enemy's trenches 800 yards S. of FLERS—SWITCH LINE from junction of FLERS ROAD to junction of COFFEE LANE exclusive.

No halt will be made in TEA SUPPORT Trench, but if necessary men must be left to deal with dug-outs.

SECOND OBJECTIVE. BROWN LINE.

Enemy's trenches running S.E. i.e. FLERS LINE from T.1.a.1.6. to M.36.d.3.4. [S.E. corner of Flers to left boundary of division].

THIRD OBJECTIVE. BLUE LINE.

The village of FLERS.

FOURTH OBJECTIVE. RED LINE.

To establish line N.20.c.7.8. to N.20.c.3.6. to Road junction N.25.b.0.6. (exclusive). [Astride GIRD trenches N.W. of GUEUDE-COURT with left on Ligny road.]

The objectives in several cases consist of a double line of trenches, in which case, the Trench furthest away is the objective, and steps must be taken to deal adequately with the intermediate trench.

These above Objectives will be assaulted in accordance with the attached Time Table.

10. P. Bombs will be extensively used in mopping up.

CLEARING
UP.

11. O.C. 11th Royal West Kent Regiment and 12th East Surrey Regiment will arrange to dig forward a communication Trench to join up with our first wave in the 1st objective.

COMMUNI-
CATION
TRENCHES.

- STRONG POINTS.** 12. Strong Points will be constructed at the following places :—¹
- | | | |
|---------------------------------|----------------------------|-------------------------------|
| S.6.d.0.5. | Green Line. | 15th Hampshire Regt. |
| S.6.c.75.55. | Green Line. | 18th Kings Royal Rifle Corps. |
| S.6.b.80.85. | Brown Line. S.W. of FLERS. | 18th K.R.R.C. |
| T.1.a.4.9. | FLERS. South East. | 15th Hampshire Regt. |
| N.31.c.6.5. | FLERS. EAST. | 15th Hampshire Regt. |
| N.31.a.8.4. | Blue Line. | 15th Hampshire Regt. |
| N.31.c.00.55. | FLERS. WEST. | 18th Kings Royal Rifle Corps. |
| N.31.a.30.68. | Blue Line. | 18th Kings Royal Rifle Corps. |
| At 2 Strong Points N. of FLERS. | | 11th Royal West Kent Regt. |
| | | 12th East Surrey Regt. |
| N.25.b.25.75. | RED Line. | 12th East Surrey Regt. |
- Special parties as above will be detailed with the definite task of constructing these Strong Points. Those Points round FLERS will be organised so as to defend the perimeter of the village with flanking fire.
- These Strong Points should be garrisoned by a platoon with a Vickers or Lewis Gun.
- When these Strong Points have been constructed and garrisoned, the troops occupying the first two German trenches and FLERS VILLAGE will re-organise ready to advance when ordered, or so soon as support is required in front.
- CARRYING PARTIES.** 13. O.C. 11th Royal West Kent Regiment and 12th East Surrey Regiment will each leave 2 platoons at GREEN DUMP as carrying parties. The senior Officer in Command of each Carrying party will report at Brigade Headquarters at 8 P.M., 14-9-16.
- STOKES GUNS.** 14. Indirect covering fire (enfilade if possible) will be carried out to assist each advance, as the situation permits.
- MACHINE GUNS.** Carrying parties for ammunition will be arranged by unit Commanders at the Position of Assembly, after which, application should be made to O.C. nearest unit.
- LEWIS GUNS.** Special Lewis Gun parties will be detailed to push beyond each objective gained to seize any tactical points not occupied by the enemy.
- BOMBS.** 15. Every man will carry 2 Mills Grenades in his pockets. These should be regarded as a reserve for use of Bombing Squads.—They will not be thrown by the men carrying them, but should be dumped as required.
- ROCKETS.** 16. Each Company will take with it 4 S.O.S. Rockets.
- COMMUNICATION WITH AERO-PLANES.** 17. Every Officer and N.C.O. and 50 men per Company will carry 2 red flares. These are to be lighted by the leading wave only at intervals of 20 yards on gaining each objective.
- Vigilant Mirrors are to be attached to the back of the coat of every tenth man.
- Panels and lamps will also be frequently used to report the situation.

¹ See Appendix 26, para. 14.

18. VISUAL SIGNALLING.

Visual stations will be installed at the following points :—¹

S.18.c.1.9.
S.16.b.5.2.
S.16.d.6.1.
S.27.b.3.0.

VISUAL
SIGNAL-
LING AND
RUNNERS.

POMMIER REDOUBT.

As the advance progresses visual stations should be established at :—¹

S.12.a.6.2. by 124th Infantry Brigade.
S.6.d.9.3. by 124th Infantry Brigade.
S.6.c. Central by 18th Kings Royal Rifle Corps.
S.5.c.2.8. by New Zealand Division.
T.1.a.6.7. by 124th Infantry Brigade.
M.36.d. Central by 18th Kings Royal Rifle Corps.

RUNNERS.

These will be organised into relays. Each relay working between posts at intervals of about 300 yards. These routes should be definitely laid down and clearly marked.

19. Each battalion will be provided with 2 pigeons daily. The PIGEONS. birds are only to be released for urgent messages, if other means of communication fail. They are to be regarded as a reserve.

20. A Wireless Station will be installed near Brigade Headquarters WIRELESS. and will keep communication with the Corps Set at POMMIERS REDOUBT.

21. Advanced Dressing Station, THE QUARRY [N. of Bernafay Wood]. MEDICAL. Divisional Collecting Station. Point F.6.a.2.0. MAMETZ—MONTAUBAN ROAD.

22. The position and contents of Dumps are shown in Table attached.² DUMPS.

23. Refilling on 14th September will be as at present, viz., FRICOURT SUPPLIES. OLD STATION.

24. Regimental Police Post will be established at BATTLE Junction of MILK LANE—YORK TRENCH [S.W. of Longueval], STOPS. 18th Kings Royal Rifle Corps.

Junction of MILK LANE—CARLTON TRENCH [W. of Longueval], 15th Hampshire Regiment.

Junction of MILK LANE—ORCHARD TRENCH [N. of Longueval], 15th Hampshire Regiment.

They will take the numbers, names and units of stragglers, whether under the influence of gas or not, and send those fit to return to their units. A special mark will be put against those without arms. F.6.a.3.0. [on Mametz—Montauban road] has been fixed as the Divisional Collecting Post.

O.C. 11th Royal West Kent Regiment will detail one N.C.O. to remain at this post to march stragglers to Brigade Headquarters as required.

25. Units will make their own arrangements for escorting prisoners PRISONERS to Brigade Headquarters. An escort of 10% is sufficient. OF WAR.

¹ See Appendix 26, para. 20.

² See Appendix 26, para. 26.

WATCHES. 26. Watches will be synchronised at Brigade Headquarters at the following times :—

12 noon for units in front line on 14-9-16.

5.30 P.M. „ „ „ on 14-9-16.

12 midnight for all units on 14/15-9-16.

An officer from each unit will report for this purpose at Brigade Headquarters. He should bring 2 watches with him.

REPORTS. 27. The situation will be reported every clock hour after Zero in addition to any important event such as the capture of an objective, which will be reported so soon as known.

13-9-16.

GWYN THOMAS, Major,
Brigade Major,
122nd Infantry Brigade.

THE SOMME, 1916

BATTLE OF FLERS—COURCELETTE.
OPERATION ORDER, 18TH BN. KING'S
ROYAL RIFLE CORPS.

JAR ORDER NO. 24.¹

1. The battalion will join in a general attack. The attack will be **Map 1**, pushed home with the utmost vigour. Enemy's moral is known to **Sketch A**, be very shaken. **Jam**¹ Bde. is the left of Div. **Jar**¹ Battn. left of Div. with New Zealand Brigade on our left.

2. The attack will be in four stages—15th Hants. and 18th K.R.R.C. in first line; 11th R.W. Kents and 12th E. Surreys in second line. Attack the four objectives according to attached time-table.²

3. Assembly. The battn. will be in position on its area at 1.30 A.M.

	D.	C.	B.	A.
A Coy. on our right	—	—	—	—
B Coy.	—	—	—	—
C Coy.	—	—	—	—
D Coy. on our left	—	—	—	—

On a four-platoon front, each wave at about 70 yards distance.

4. **Milk Lane**³ is the only communication trench to be used by the battn.

5. The 15th Hants will direct.

6. The artillery will form creeping barrages. First wave to advance immediately behind barrage. Each wave moving on 70 yards behind preceding one.

7. At Zero hour (notified later) the leading wave will be in position as close as possible to the creeping barrage. As each wave moves forward its place is taken by the wave in rear.

First Objective.⁴—Green Line (junction on road S.6.d.7.7. to S.6.c.2.7.). No halt to be made in Tea Trench, though a few P. bombs may be required for dugouts. Our first wave stays in Green Line and consolidates.

¹ The Code Names for 122nd Bde. and 18th K.R.R.C. were "Jam" and "Jar" respectively.

² Not reproduced.

³ See Appendix 26, para. 4.

⁴ The whole brigade objectives are given.

Second Objective.¹—Brown Line. Trenches Flers line T.1.a.1.6.—M.36.d.3.4. Our second wave stays in Brown Line and consolidates.

Third Objective.¹—Blue Line. The village of Flers. The battn. will capture the west half of Flers. Our two last waves will reorganise on the blue line after clearing Flers, and consolidate.

Fourth Objective.¹—Red Line. To establish line N.20.c.7.8. to N.20.c.3.6. to road junction N.25.b.0.6.

The objectives often consist of two lines of trenches. The second one is the important one.

8. P. bombs will be extensively used in mopping up dugouts.

9. Strong points will be made as follows :—

S.6.c.75.55. [in Switch Line] by A. Coy.

S.6.b.80.85. [Flers Trench on S. edge of village] by A. Coy.

N.31.c.00.55. Flers (West) by B. Coy.

N.31.a.30.68. Blue Line (N.W. corner of Flers) by D. Coy.

These points will be organised to bring flanking fire on the village of Flers, and a Lewis gun placed in each. When these strong points have been made and garrisoned, the troops occupying the first two German trenches and Flers village will reorganise, complete ammunition, and be prepared to advance when support is required.

10. Carrying parties will be told off for ammunition of Lewis guns and Stokes guns. Lewis guns must be prepared to push out to gain any tactical points in advance.

11. Every man will carry two bombs (Mills) in his pocket to be collected as a reserve for use of bombing squads.

12. Each coy. will carry 4 S.O.S. rockets and 50 P. bombs for mopping dugouts.

13. Each officer, N.C.O. and 50 men per coy. will carry 2 Red flares, these to be lighted only by leading wave at intervals of 20 yards when an objective is reached. Vigilant mirrors are to be attached to the back of each 10th man.

Panels and lamps to be used by signallers for aeroplane reports.

Signalling stations will be established at S.6.c. central [W. of a point on road mid-way between Longueval and Flers] and M.36.d. central [W. side of Flers].

Runners will be organised in relays by direct route to Tea Trench from whence we start.

2 Pigeons will be in reserve for most urgent messages.

14. Advanced Dressing Station at the Quarry S.22.c.2.6. [N. of Bernafay Wood].

15. A regimental police post will be established at junction of Milk Lane and Carlton Trench.² They will take numbers, names, and units, of stragglers whether under influence of gas or not, and send those fit to return to their units. Special mark to be put against names of men without arms.

16. Watches will be synchronised at 6 P.M. and 12.30 A.M.

¹ The whole brigade objectives are given.

² 400 yards W. of the road-junctions on the western side of Longueval.

17. The situation will be reported every clock hour after Zero. Every endeavour must be made to keep higher commands fully informed as to progress.

18. Stokes guns will move with second wave.

F. WALTON, Capt. & Adjt.,
for, Lt.-Col. Commdg.
18th (S) Bn. K.R.R.C.

14.9.16

DISTRIBUTION OF ARTILLERY WITH THE BRITISH ARMIES IN FRANCE
JULY-NOVEMBER 1916

Field guns & hows.	4.7-inch guns.	60-pdrs.	6-inch		8-inch hows.	9.2-inch		12-inch		15-inch hows.	Miscellaneous. (A.A. guns, 15-pdrs. etc.)	TOTAL.
			guns.	hows.		guns.	hows.	guns.	hows.			
616	4	28	2	14	—	1	—	—	4	—	24	693
688	32	60	8	34	—	—	12	—	13	1	54	902
558	20	24	—	24	—	—	24	—	2	2	22	676
974	20	68	14	80	36	2	36	1	7	2	69	1,309
520	12	60	10	44	28	—	24	—	4	4	14	720
—	—	—	—	—	—	—	—	—	—	—	34	34
—	—	—	—	—	—	—	—	—	—	—	4	4
3,356	88	240	34	196	64	3	96	1	30	9	221	4,388

{ First Army
 { Second " "
 { Third " "
 { Fourth " "
 { Reserve " "
 { I.G.C.
 { G.H.Q. Troops

TOTAL

APPENDIX 30.

694	4	36	2	18	—	—	8	—	4	—	28	794
884	32	56	8	34	—	—	12	1	13	1	53	1,044
328	16	32	44	44	4	—	15	—	4	1	24	468
974	24	72	14	76	39	3	40	1	7	3	52	1,305
640	12	76	10	44	32	—	32	—	4	4	33	887
—	—	—	—	8	—	—	—	—	—	—	32	40
—	—	—	—	—	—	—	—	—	—	—	6	6
3,470	88	272	34	224	75	3	107	2	32	9	228	4,544

{ First Army
 { Second " "
 { Third " "
 { Fourth " "
 { Reserve " "
 { I.G.C.
 { G.H.Q. Troops

TOTAL

RECEIPTS AND EXPENDITURE OF GUN AMMUNITION
BRITISH ARMIES IN FRANCE, 1916

RECEIPTS

Quarter Ended.	18-pdr.	4.5-inch How.	4.7-inch and 60-pdr.	6-inch How.	6-inch Gun.	8-inch How.	9.2-inch How.	9.2-inch Gun.	12-inch How.	12-inch Gun.	15-inch How.
30.6.16	5,071,740	935,454	322,205	257,449	8,950	60,931	56,147	2,605	2,226	200	314
30.9.16	9,808,042	2,124,510	848,592	761,467	48,568	266,278	296,207	1,232	22,857	600	2,302
31.12.16	11,361,364	2,512,171	1,022,546	1,072,292	49,638	310,271	359,696	1,481	25,075	400	2,037
TOTAL	26,241,146	5,572,135	2,188,343	2,091,208	102,156	637,480	712,050	5,318	50,158	1,200	4,658

EXPENDITURE

Quarter Ended.	18-pdr.	4.5-inch How.	4.7-inch and 60-pdr.	6-inch How.	6-inch Gun.	8-inch How.	9.2-inch How.	9.2-inch Gun.	12-inch How.	12-inch Gun.	15-inch How.
30.6.16	2,783,300	618,165	253,578	157,301	15,607	62,306	44,541	185	6,374	81	1,115
30.9.16	12,417,051	2,314,384	912,782	757,648	45,064	267,061	262,562	2,187	19,858	880	2,881
31.12.16	7,282,740	1,637,011	694,236	747,222	36,755	187,627	236,344	806	9,028	303	1,326
TOTAL	22,483,091	4,569,560	1,860,596	1,662,171	97,426	516,994	543,447	3,128	35,260	1,264	5,322

THE SOMME, 1916

ORDER OF BATTLE OF INFANTRY AND
PIONEER BATTALIONS

GUARDS DIVISION

<i>1st Guards Brigade :</i>			
2/Gren. Gds.	2/Coldstr. Gds.	3/Coldstr. Gds.	1/Irish Gds.
<i>2nd Guards Brigade :</i>			
3/Gren. Gds.	1/Coldstr. Gds.	1/Scots Gds.	2/Irish Gds.
<i>3rd Guards Brigade :</i>			
1/Gren. Gds.	4/Gren. Gds.	2/Scots Gds.	1/Welch Gds.
<i>Pioneers :</i>	4/Coldstr. Gds.		

1ST DIVISION

<i>1st Brigade :</i>			
10/Gloster.	1/Black Watch	8/R. Berks.	1/Cameron's.
<i>2nd Brigade :</i>			
2/R. Sussex.	1/L. N. Lancs.	1/Northampton.	2/K.R.R.C.
<i>3rd Brigade :</i>			
1/S.W.B.	1/Gloster.	2/Welch.	2/R.M.F.
<i>Pioneers :</i>	1/6th Welch.		

2ND DIVISION

<i>5th Brigade :</i>			
17/R. Fus.	24/R. Fus.	2/O. & B.L.I.	2/H.L.I.
<i>6th Brigade :</i>			
1/King's.	2/S. Staffs.	13/Essex.	17/Middlesex.
<i>99th Brigade :</i>			
22/R. Fus.	23/R. Fus.	1/R. Berks.	1/K.R.R.C.
<i>Pioneers :</i>	10/D.C.L.I.		

3RD DIVISION

<i>8th Brigade :</i>			
2/R. Scots.	8/E. Yorks.	1/R. Scots Fus.	7/K.S.L.I.
<i>9th Brigade :</i>			
1/North'd Fus.	4/R. Fus.	13/King's.	12/W. Yorks.
<i>76th Brigade :</i>			
8/King's Own.	2/Suffolk.	10/R. Welch Fus.	1/Gordons.
<i>Pioneers :</i>	20/K.R.R.C.		

4TH DIVISION

<i>10th Brigade :</i>			
1/R. Warwick.	2/Seaforth.	1/R. Irish Fus.	2/R. Dub. Fus.
<i>11th Brigade :</i>			
1/Somerset L.I.	1/E. Lancs.	1/Hampshire.	1/Rif. Brig.
<i>12th Brigade :</i>			
1/King's Own.	2/Lancs. Fus.	2/Essex.	2/D.W.R.
<i>Pioneers :</i> 21/W. Yorks.			

5TH DIVISION

<i>13th Brigade :</i>			
14/R. Warwick.	15/R. Warwick.	2/K.O.S.B.	1/R. W. Kent.
<i>15th Brigade :</i>			
16/R. Warwick.	1/Norfolk.	1/Bedford.	1/Cheshire.
<i>95th Brigade :</i>			
1/Devon.	12/Gloster.	1/E. Surrey.	1/D.C.L.I.
<i>Pioneers :</i> 1/6th A. & S. H.			

6TH DIVISION

<i>16th Brigade :</i>			
1/Buffs.	8/Bedford.	1/K.S.L.I.	2/York & Lanc.
<i>18th Brigade :</i>			
1/W. Yorks.	11/Essex.	2/D.L.I.	14/D.L.I.
<i>71st Brigade :</i>			
9/Norfolk.	9/Suffolk.	1/Leicester.	2/Sherwood For.
<i>Pioneers :</i> 11/Leicester.			

7TH DIVISION

<i>20th Brigade :</i>			
8/Devon.	9/Devon.	2/Border Regt.	2/Gordons.
<i>22nd Brigade :</i>			
2/R. Warwick.	2/R. Irish.	1/R. Welch Fus.	20/Manchester.
<i>91st Brigade :</i>			
2/Queen's.	1/S. Staffs.	21/Manchester.	22/Manchester.
<i>Pioneers :</i> 24/Manchester.			

8TH DIVISION

<i>23rd Brigade :</i>			
2/Devon.	2/W. Yorks.	2/Middlesex.	2/Sco. Rif.
<i>24th Brigade :¹</i>			
1/Worcs.	1/Sherwood For.	2/Northampton.	2/E. Lancs.
<i>25th Brigade :</i>			
2/Lincoln.	2/R. Berks.	1/R. Irish Rif.	2/Rif. Brig.
<i>Pioneers :</i> 22/D.L.I.			

9TH (SCOTTISH) DIVISION

<i>26th Brigade :</i>			
8/Black Watch.	7/Seaforth.	5/Cameron's.	10/A. & S. H.
<i>27th Brigade :</i>			
11/R. Scots.	12/R. Scots.	6/K.O.S.B.	9/Sco. Rif.

¹ With 28th Division until 15th July, in exchange for 70th Brigade.

S.A. Brigade :

1/Regt. (Cape Prov.)

3/Regt. (Trans. & Rhod.)

2/Regt. (Natal & O.F.S.)

4/Regt. (Scottish).

Pioneers : 9/Seaforth.

11TH DIVISION

32nd Brigade :

9/W. Yorks.

6/Green Howards. 8/D.W.R.

6/York & Lanc.

33rd Brigade :

6/Lincoln.

6/Border Regt. 7/S. Staffs.

9/Sherwood For.

34th Brigade :

8/North'd Fus.

9/Lancs. Fus.

5/Dorset.

11/Manchester.

Pioneers : 6/E. Yorks.

12TH (EASTERN) DIVISION

35th Brigade :

7/Norfolk.

7/Suffolk.

9/Essex.

5/R. Berks.

36th Brigade :

8/R. Fus.

9/R. Fus.

7/R. Sussex.

11/Middlesex.

37th Brigade :

6/Queen's.

6/Buffs.

7/E. Surrey.

6/R. W. Kent.

Pioneers : 5/Northampton.

14TH (LIGHT) DIVISION

41st Brigade :

7/K.R.R.C.

8/K.R.R.C.

7/Rif. Brig.

8/Rif. Brig.

42nd Brigade :

5/O. & B.L.I.

5/K.S.L.I.

9/K.R.R.C.

9/Rif. Brig.

43rd Brigade :

6/Somerset L.I.

6/D.C.L.I.

6/K.O.Y.L.I.

10/D.L.I.

Pioneers : 11/King's.

15TH (SCOTTISH) DIVISION

44th Brigade :

9/Black Watch.

8/Seaforth.

8th/10th Gordons. 7/Camerons.

45th Brigade :

13/R. Scots.

6th/7th R. Scots Fus. 6/Camerons. 11/A. & S. H.

46th Brigade :

10/Sco. Rif.

7th/8th K.O.S.B. 10th/11th H.L.I. 12/H.L.I.

Pioneers : 9/Gordons.

16TH (IRISH) DIVISION

47th Brigade :

6/R. Irish.

6/Conn. Rangers. 7/Leinster.

8/R.M.F.

48th Brigade :

7/R. Irish Rif.

1/R.M.F.

8/R. Dub. Fus.

9/R. Dub. Fus.

49th Brigade :

7/R. Innis. Fus.

8/R. Innis. Fus.

7/R. Irish Fus.

8/R. Irish Fus.

Pioneers : 11/Hampshire.

17TH (NORTHERN) DIVISION

<i>50th Brigade :</i> 10/W. Yorks.	7/E. Yorks.	7/Green Howards.	6/Dorset.
<i>51st Brigade :</i> 7/Lincoln.	7/Border Regt.	8/S. Staffs.	10/Sherwood For.
<i>52nd Brigade :</i> 9/North'd Fus.	10/Lancs. Fus.	9/D.W.R.	12/Manchester.
<i>Pioneers :</i> 7/York & Lanc.			

18TH (EASTERN) DIVISION

<i>53rd Brigade :</i> 8/Norfolk.	8/Suffolk.	10/Essex.	6/R. Berks.
<i>54th Brigade :</i> 11/R. Fus.	7/Bedford.	6/Northampton.	12/Middlesex.
<i>55th Brigade :</i> 7/Queen's.	7/Bufs.	8/E. Surrey.	7/R. W. Kent.
<i>Pioneers :</i> 8/R. Sussex.			

19TH (WESTERN) DIVISION

<i>56th Brigade :</i> 7/King's Own.	7/E. Lancs.	7/S. Lancs.	7/L. N. Lancs.
<i>57th Brigade :</i> 10/R. Warwick.	8/Gloster.	10/Worcs.	8/N. Staffs.
<i>58th Brigade :</i> 9/Cheshire.	9/R. Welch Fus.	9/Welch.	6/Wiltshire.
<i>Pioneers :</i> 5/S.W.B.			

20TH (LIGHT) DIVISION

<i>59th Brigade :</i> 10/K.R.R.C.	11/K.R.R.C.	10/Rif. Brig.	11/Rif. Brig.
<i>60th Brigade :</i> 6/O. & B.L.I.	6/K.S.L.I.	12/K.R.R.C.	12/Rif. Brig.
<i>61st Brigade :</i> 7/Somerset L.I.	7/D.C.L.I.	7/K.O.Y.L.I.	12/King's.
<i>Pioneers :</i> 11/D.L.I.			

21ST DIVISION

<i>62nd Brigade :</i> 12/North'd Fus.	13/North'd Fus.	1/Lincoln.	10/Green Howards.
<i>63rd Brigade :¹</i> 8/Lincoln.	8/Somerset L.I.	4/Middlesex.	10/York & Lanc.
<i>64th Brigade :</i> 1/E. Yorks.	9/K.O.Y.L.I.	10/K.O.Y.L.I.	15/D.L.I.
<i>Pioneers :</i> 14/North'd Fus.			

23RD DIVISION

<i>68th Brigade :</i> 10/North'd Fus.	11/North'd Fus.	12/D.L.I.	13/D.L.I.
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¹ Exchanged with 110th Bde. of 37th Division, 7th July.

69th Brigade :

11/W. Yorks. 8/Green Howards. 9/Green Howards. 10/D.W.R.

70th Brigade¹ :

11/Sherwood For. 8/K.O.Y.L.I. 8/York & Lanc. 9/York & Lanc.

Pioneers : 9/S. Staffs.

24TH DIVISION

17th Brigade :

8/Bufs. 1/R. Fus. 12/R. Fus. 3/Rif. Brig.

72nd Brigade :

8/Queen's. 9/E. Surrey. 8/R. W. Kent. 1/N. Staffs.

73rd Brigade :

9/R. Sussex. 7/Northampton. 13/Middlesex. 2/Leinster.

Pioneers : 12/Sherwood For.

25TH DIVISION

7th Brigade :

10/Cheshire. 3/Worcs. 8/L. N. Lancs. 1/Wiltshire.

74th Brigade :

11/Lancs. Fus. 13/Cheshire. 9/L. N. Lancs. 2/R. Irish. Rif.

75th Brigade :

11/Cheshire. 8/Border Regt. 2/S. Lancs. 8/S. Lancs.

Pioneers : 6/S.W.B.

29TH DIVISION

86th Brigade :

2/R. Fus. 1/Lancs. Fus. 16/Middlesex. 1/R. Dub. Fus.

87th Brigade :

2/S.W.B. 1/K.O.S.B. 1/R. Innis. Fus. 1/Border Regt.

*88th Brigade :*4/Worcs. 1/Essex. 2/Hampshire. R. Newfoundland
Regt.*Pioneers :* 2/Monmouth.

30TH DIVISION

21st Brigade :

18/King's. 2/Green Howards. 2/Wiltshire. 19/Manchester.

89th Brigade :

17/King's. 19/King's. 20/King's. 2/Bedford.

90th Brigade :

2/R. Scots Fus. 16/Manchester. 17/Manchester. 18/Manchester.

Pioneers : 11/S. Lancs.

31ST DIVISION

92nd Brigade :

10/E. Yorks. 11/E. Yorks. 12/E. Yorks. 13/E. Yorks.

93rd Brigade :

15/W. Yorks. 16/W. Yorks. 18/W. Yorks. 18/D.L.I.

94th Brigade :

11/E. Lancs. 12/York & Lanc. 13/York & Lanc. 14/York & Lanc.

Pioneers : 12/K.O.Y.L.I.¹ With 8th Division until 15th July, in exchange for 24th Bde.

32ND DIVISION

<i>14th Brigade :</i>			
19/Lancs. Fus. ¹	1/Dorset.	2/Manchester.	15/H.L.I.
<i>96th Brigade :</i>			
16/North'd Fus.	15/Lancs. Fus.	16/Lancs. Fus.	2/R. Innis. Fus.
<i>97th Brigade :</i>			
11/Border Regt.	2/K.O.Y.L.I.	16/H.L.I.	17/H.L.I.
<i>Pioneers :</i> 17/North'd Fus. ²			

33RD DIVISION

<i>19th Brigade :</i>			
20th R. Fus.	2/R. Welch Fus.	1/Cameronians.	5/Sco. Rif.
<i>98th Brigade :</i>			
4/King's.	1/4th Suffolk.	1/Middlesex.	2/A. & S. H.
<i>100th Brigade :</i>			
1/Queen's.	2/Worcs.	16/K.R.R.C.	1/9th H.L.I.
<i>Pioneers :</i> 18/Middlesex.			

34TH DIVISION

<i>101st Brigade :</i>			
15/R. Scots.	16/R. Scots.	10/Lincoln.	11/Suffolk.
<i>102nd (Tyneside Scottish) Brigade³ :</i>			
20/North'd Fus.	21/North'd Fus.	22/North'd Fus.	23/North'd Fus.
<i>103rd (Tyneside Irish) Brigade⁴ :</i>			
24/North'd Fus.	25/North'd Fus.	26/North'd Fus.	27/North'd Fus.
<i>Pioneers :</i> 18/North'd Fus. ⁵			

35TH (BANTAM) DIVISION

<i>104th Brigade :</i>			
17/Lancs. Fus.	18/Lancs. Fus.	20/Lancs. Fus.	23/Manchester.
<i>105th Brigade :</i>			
15/Cheshire.	16/Cheshire.	14/Gloster.	15/Sherwood For.
<i>106th Brigade :</i>			
17/R. Scots.	17/W. Yorks.	19/D.L.I.	18/H.L.I.
<i>Pioneers :</i> 19/North'd Fus.			

36TH (ULSTER) DIVISION

<i>107th Brigade :</i>			
8/R. Irish Rif.	9/R. Irish Rif.	10/R. Irish Rif.	15/R. Irish Rif.
<i>108th Brigade :</i>			
11/R. Irish Rif.	12/R. Irish Rif.	13/R. Irish Rif.	9/R. Irish Fus.
<i>109th Brigade :</i>			
9/R. Innis. Fus.	10/R. Innis. Fus.	11/R. Innis. Fus.	14/R. Irish Rif.
<i>Pioneers :</i> 16/R. Irish Rif.			

¹ Replaced by 5th/6th R. Scots, 29th July.² Replaced by 12/L. N. Lancs., 19th October.³ Attached to 37th Division 7th July-21st Aug.⁴ Attached to 37th Division 7th July-21st Aug.⁵ Attached to 37th Division 7th July-21st Aug.

Replaced by 111th Bde.

Replaced by 112th Bde.

Replaced by 9/N. Staffs.

37TH DIVISION

<i>110th Brigade</i> ¹ :			
6/Leicester.	7/Leicester.	8/Leicester.	9/Leicester.
<i>111th Brigade</i> ² :			
10/R. Fus.	13/R. Fus.	13/K.R.R.C.	13/Rif. Brig.
<i>112th Brigade</i> ² :			
11/R. Warwick.	6/Bedford.	8/E. Lancs.	10/L. N. Lancs.
<i>Pioneers</i> : 9/N. Staffs. ³			

38TH (WELSH) DIVISION

<i>113th Brigade</i> :			
13/R. Welch Fus.	14/R. Welch Fus.	15/R. Welch Fus.	16/R. Welch Fus.
<i>114th Brigade</i> :			
10/Welch.	13/Welch.	14/Welch.	15/Welch.
<i>115th Brigade</i> :			
10/S.W.B.	11/S.W.B.	17/R. Welch Fus.	16/Welch.
<i>Pioneers</i> : 19/Welch.			

39TH DIVISION

<i>116th Brigade</i> :			
11/R. Sussex.	12/R. Sussex.	13/R. Sussex.	14/Hampshire.
<i>117th Brigade</i> :			
16/Sherwood For.	17/Sherwood For.	17/K.R.R.C.	16/Rif. Brig.
<i>118th Brigade</i> :			
1/6th Cheshire.	1/1st Cambs.	1/1st Herts.	4th/5th Black Watch.
<i>Pioneers</i> : 13/Gloster.			

41ST DIVISION

<i>122nd Brigade</i> :			
12/E. Surrey.	15/Hampshire.	11/R. W. Kent.	18/K.R.R.C.
<i>123rd Brigade</i> :			
11/Queen's.	10/R. W. Kent.	23/Middlesex.	20/D.L.I.
<i>124th Brigade</i> :			
10/Queen's.	26/R. Fus.	32/R. Fus.	21/K.R.R.C.
<i>Pioneers</i> : 19/Middlesex.			

46TH (NORTH MIDLAND) DIVISION (T.F.)

<i>137th Brigade</i> :			
1/5th S. Staffs.	1/6th S. Staffs.	1/5th N. Staffs.	1/6th N. Staffs.
<i>138th Brigade</i> :			
1/4th Lincoln.	1/5th Lincoln.	1/4th Leicester.	1/5th Leicester.
<i>139th Brigade</i> :			
1/5th Sherwood For.	1/6th Sherwood For.	1/7th Sherwood For.	1/8th Sherwood For.
<i>Pioneers</i> : 1/Monmouth.			

¹ Exchanged with 68rd Bde., 21st Division, 7th July.² Attached 7th July-21st Aug. to 34th Division *q.v.*

47TH (1/2ND LONDON) DIVISION (T.F.)

140th Brigade :

1/6th London (City of London).	1/8th London (P.O. Rifles).
1/7th London (City of London).	1/15th London (C.S. Rifles).

141st Brigade :

1/17th London (Poplar & Stepney Rifles).	1/19th London (St. Pancras).
1/18th London (London Irish Rifles).	1/20th London (Blackheath & Woolwich).

142nd Brigade :

1/21st London (1st Surrey Rifles).	1/23rd London.
1/22nd London (The Queen's).	1/24th London (The Queen's).

Pioneers : 1/4th R. Welch Fus.

48TH (S. MIDLAND) DIVISION (T.F.)

143rd Brigade :

1/5th R. War- wick.	1/6th R. War- wick.	1/7th R. War- wick.	1/8th R. War- wick.
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144th Brigade :

1/4th Gloster.	1/6th Gloster.	1/7th Worcs.	1/8th Worcs.
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145th Brigade :

1/5th Gloster.	1/4th O. & B.L.I.	1/1st Bucks.	1/4th R. Berks.
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Pioneers : 1/5th R. Sussex.

49TH (W. RIDING) DIVISION (T.F.)

146th Brigade :

1/5th W. Yorks.	1/6th W. Yorks.	1/7th W. Yorks.	1/8th W. Yorks.
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147th Brigade :

1/4th D.W.R.	1/5th D.W.R.	1/6th D.W.R.	1/7th D.W.R.
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148th Brigade :

1/4th K.O.Y.L.I.	1/5th K.O.Y.L.I.	1/4th York & Lanc.	1/5th York & Lanc.
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Pioneers : 3/Monmouth. (Replaced by 19/Lancs. Fus. 6th Aug.)

50TH (NORTHUMBRIAN) DIVISION (T.F.)

149th Brigade :

1/4th North'd Fus.	1/5th North'd Fus.	1/6th North'd Fus.	1/7th North'd Fus.
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150th Brigade :

1/4th E. Yorks.	1/4th Green Howards.	1/5th Green Howards.	1/5th D.L.I.
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151st Brigade :

1/5th Border Regt.	1/6th D.L.I.	1/8th D.L.I.	1/9th D.L.I.
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Pioneers : 1/7th D.L.I.

51ST (HIGHLAND) DIVISION (T.F.)

152nd Brigade :

1/5th Seaforth.	1/6th Seaforth.	1/6th Gordons.	1/8th A. & S. H.
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153rd Brigade :

1/6th Black Watch.	1/7th Black Watch.	1/5th Gordons.	1/7th Gordons.
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154th Brigade :

1/9th R. Scots.	1/4th Seaforth.	1/4th Gordons.	1/7th A. & S. H.
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Pioneers : 1/8th R. Scots.

55TH (W. LANCES.) DIVISION (T.F.)

164th Brigade :

1/4th King's Own.	1/8th King's.	2/5th Lances. Fus.	1/4th L. N. Lances.
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165th Brigade :

1/5th King's.	1/6th King's.	1/7th King's.	1/9th King's.
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166th Brigade :

1/5th King's Own.	1/10th King's.	1/5th S. Lances.	1/5th L. N. Lances.
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Pioneers : 1/4th S. Lances.

56TH (1/1ST LONDON) DIVISION (T.F.)

167th Brigade :

1/1st London (R.F.).	1/3rd London (R.F.).	1/7th Middlesex.	1/8th Middlesex.
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168th Brigade :

1/4th London (R.F.).	1/12th London (Rangers).	1/18th London (Kensington).	1/14th London (Lon. Scot.).
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169th Brigade :

1/2nd London (R.F.).	1/5th London (L.R.B.).	1/9th London (Q.V.R.).	1/16th London (Q.W.R.).
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Pioneers : 1/5th Cheshire.

63RD (R.N.) DIVISION

188th Brigade :

Anson Bn.	Howe Bn.	1/R. Marine Bn.	2/R. Marine Bn.
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189th Brigade :

Hood Bn.	Nelson Bn.	Hawke Bn.	Drake Bn.
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190th Brigade :

1/H.A.C.	7/R. Fus.	4/Bedford.	10/R. Dub. Fus.
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Pioneers : 14/Worcs.

1ST AUSTRALIAN DIVISION

1st (N.S.W.) Brigade :

1st Bn.	2nd Bn.	3rd Bn.	4th Bn.
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2nd (Victoria) Brigade :

5th Bn.	6th Bn.	7th Bn.	8th Bn.
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3rd Brigade :

9th (Q'land) Bn.	11th (W. Austr.) Bn.
10th (S. Austr.) Bn.	12th (S. & W. Austr., Tas.) Bn.

Pioneers : 1st Austr. Pioneer Bn.

2ND AUSTRALIAN DIVISION

<i>5th (N.S.W.) Brigade :</i>			
17th Bn.	18th Bn.	19th Bn.	20th Bn.
<i>6th (Victoria) Brigade :</i>			
21st Bn.	22nd Bn.	23rd Bn.	24th Bn.
<i>7th Brigade :</i>			
25th (Q'land) Bn.		27th (S. Austr.) Bn.	
26th (Q'land, Tas.) Bn.		28th (W. Austr.) Bn.	
<i>Pioneers : 2nd Austr. Pioneer Bn.</i>			

4TH AUSTRALIAN DIVISION

<i>4th Brigade :</i>			
13th (N.S.W.) Bn.		15th (Q'land, Tas.) Bn.	
14th (Vic.) Bn.		16th (S. & W. Austr.) Bn.	
<i>12th Brigade :</i>			
45th (N.S.W.) Bn.		47th (Q'land, Tas.) Bn.	
46th (Vic.) Bn.		48th (S. & W. Austr.) Bn.	
<i>13th Brigade :</i>			
49th (Q'land) Bn.		51st (W. Austr.) Bn.	
50th (S. Austr.) Bn.		52nd (S. & W. Austr., Tas.) Bn.	
<i>Pioneers : 4th Aust. Pioneer Bn.</i>			

5TH AUSTRALIAN DIVISION

<i>8th Brigade :</i>			
29th (Vic.) Bn.		31st (Q'land, Vic.) Bn.	
30th (N.S.W.) Bn.		32nd (S. & W. Austr.) Bn.	
<i>14th (N.S.W.) Brigade :</i>			
53rd Bn.	54th Bn.	55th Bn.	56th Bn.
<i>15th (Victoria) Brigade :</i>			
57th Bn.	58th Bn.	59th Bn.	60th Bn.
<i>Pioneers : 5th Austr. Pioneer Bn.</i>			

1ST CANADIAN DIVISION

<i>1st Brigade :</i>			
1st (Ontario) Bn.		3rd Bn. (Toronto Regt.).	
2nd (E. Ontario) Bn.		4th Bn.	
<i>2nd Brigade :</i>			
5th (Western Cav.) Bn.		8th Bn. (90th Rif.).	
7th Bn. (1st Br. Columbia).		10th Bn.	
<i>3rd Brigade :</i>			
13th Bn. (R. Highlanders).		15th Bn. (48th Highlanders).	
14th Bn. (R. Montreal Regt.).		16th Bn. (Canadian Scottish).	
<i>Pioneers : 1st Canadian Pioneer Bn.</i>			

2ND CANADIAN DIVISION

<i>4th Brigade :</i>			
18th (W. Ontario) Bn.		20th (Central Ontario) Bn.	
19th (Central Ontario) Bn.		21st (E. Ontario) Bn.	

5th Brigade :

22nd (Canadien Français) Bn.
24th Bn. (Victoria Rif.).

25th Bn. (Nova Scotia Rif.).
26th (New Brunswick) Bn.

6th Brigade :

27th (City of Winnipeg) Bn.
28th (North-West) Bn.

29th (Vancouver) Bn.
31st (Alberta) Bn.

Pioneers : 2nd Canadian Pioneer Bn.

3RD CANADIAN DIVISION

7th Brigade :

P.P.C.L.I.
R. Cdn. Regt.

42nd Bn. (R. Highlanders).
49th (Edmonton) Bn.

8th Brigade :

1st Cdn. M.R. 2nd Cdn. M.R. 4th Cdn. M.R. 5th Cdn. M.R.

9th Brigade :

43rd Bn. (Cameron Highlanders).
52nd (New Ontario) Bn.

58th Bn.
60th Bn. (Victoria Rif.).

Pioneers : 3rd Canadian Pioneer Bn.

4TH CANADIAN DIVISION

10th Brigade :

44th Bn.
46th (S. Saskatchewan) Bn.

47th (Br. Columbia) Bn.
50th (Calgary) Bn.

11th Brigade :

54th (Kootenay) Bn.
75th (Mississauga) Bn.

87th Bn. (Canadian Grenadier
Guards).
102nd Bn.

12th Brigade :

38th (Ottawa) Bn.
72nd Bn. (Seaforth Highlanders).

73rd Bn. (R. Highlanders).
78th Bn. (Winnipeg Grenadiers).

Pioneers : 67th Canadian Pioneer Bn.

NEW ZEALAND DIVISION

1st N.Z. Brigade :

1/Auckland. 1/Canterbury. 1/Otago. 1/Wellington.

2nd N.Z. Brigade :

2/Auckland. 2/Canterbury. 2/Otago. 2/Wellington.

3rd N.Z. Rifle Brigade :

1/N.Z.R.B. 2/N.Z.R.B. 3/N.Z.R.B. 4/N.Z.R.B.

Pioneers : N.Z. Pioneer Bn.

THE SOMME, 1916

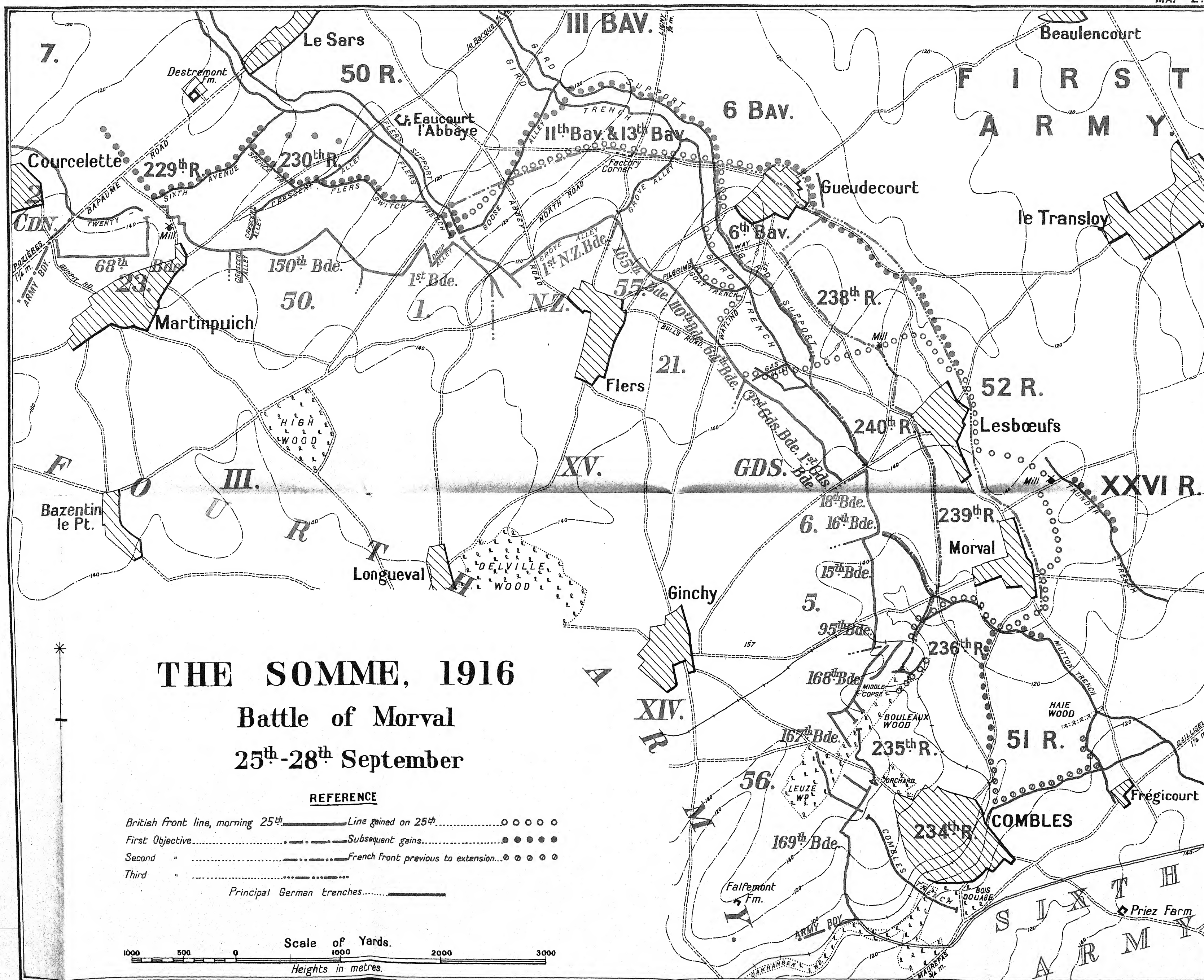
ORDER OF BATTLE OF GERMAN INFANTRY

3rd Guard Division :	Guard Fus.; Lehr Regt.; Gren. Regt. No. 9.
4th Guard Division :	5th Gd. Ft.; 5th Gd. Gren.; Res. Regt. No. 93.
5th Division :	Gren. Regts. Nos. 8, 12 ; Regt. No. 52.
6th Division :	Regts. Nos. 20, 24, 64.
7th Division :	Regts. Nos. 26, 27, ¹ 165.
8th Division :	Regts. Nos. 72, 93, 153.
12th Division :	Regts. Nos. 23, 62, 63.
16th Division :	Regts. Nos. 28, 29, 68, 69.
24th Division :	Regts. Nos. 133, 139, 179.
26th Division :	Gren. Regt. No. 119 ; Regts. Nos. 121, 125.
27th Division :	Regt. No. 120 ; Gren. Regt. No. 123 ; Regts. Nos. 124, 127.
38th Division :	Regts. Nos. 94, 95, 96.
40th Division :	Regts. Nos. 104, 134, 181.
52nd Division :	Regts. Nos. 66, 169, 170.
56th Division :	Fus. Regt. No. 35 ; Regts. Nos. 88, 118.
58th Division :	Regts. Nos. 106, 107 ; Res. Regt. No. 120.
111th Division :	Fus. Regt. No. 73 ; Regts. Nos. 76, 164.
117th Division :	Regt. No. 157 ; Res. Regts. Nos. 11, 22.
183rd Division :	Regts. Nos. 183, 184 ; Res. Regt. No. 122.
185th Division ² :	Regts. Nos. 185, 186, 190.
208th Division :	Regts. Nos. 25, 185 ; Res. Regt. No. 65.
222nd Division :	Regts. Nos. 193, 397 ; Res. Regt. No. 81.
223rd Division :	Regts. Nos. 144, 173 ; Ersatz Regt. No. 29.

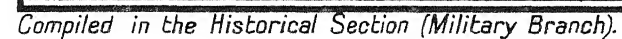
¹ Replaced by Regt. No. 393 for second tour.² Reorganized for second tour, composition being Regts. Nos. 65, 161 and Res. Regt. No. 28.

1st Guard Reserve Div. :	Gd. Res. Regts. Nos. 1, 2 ; Res. Regt. No. 64.
2nd Guard Reserve Div. :	Res. Regts. Nos. 15, 55, 77, 91.
7th Reserve Division :	Res. Regts. Nos. 36, 66, 72.
12th Reserve Division :	Res. Regts. Nos. 23, 38, 51.
17th Reserve Division :	Regts. Nos. 162, 163 ; Res. Regts. Nos. 75, ¹ 76.
18th Reserve Division :	Res. Regts. Nos. 31, 84, 86.
19th Reserve Division :	Res. Regts. Nos. 73, 78, 79, 92.
23rd Reserve Division :	Res. Gren. Regt. No. 101 ; Res. Regts. Nos. 101, 102 ; Regt. No. 392.
24th Reserve Division :	Res. Regts. Nos. 101, 107, 133.
26th Reserve Division :	Res. Regts. Nos. 99, 119, 121 ; Regt. No. 180.
28th Reserve Division :	Res. Regts. Nos. 109, 110, 111.
45th Reserve Division :	Res. Regts. Nos. 210, 211, 212.
50th Reserve Division :	Res. Regts. Nos. 229, 230, 231.
51st Reserve Division :	Res. Regts. Nos. 233, 234, 235, 236.
52nd Reserve Division :	Res. Regts. Nos. 238, 239, 240.
4th Ersatz Division :	Regts. Nos. 359, 360, 361, 362.
5th Ersatz Division :	Landwehr Regts. Nos. 73, 74 ; Res. Ersatz Regt. No. 3.
2nd Bavarian Division :	Bav. Regts. Nos. 12, 15, 20.
3rd Bavarian Division :	Bav. Regts. Nos. 17, 18, 23.
4th Bavarian Division :	Bav. Regts. Nos. 5, 9 ; Bav. Res. Regt. No. 5.
5th Bavarian Division :	Bav. Regts. Nos. 7, 14, 19, 21.
6th Bavarian Division :	Bav. Regts. Nos. 6, 10, 11, 13.
10th Bavarian Division :	Bav. Regt. No. 16 ; Bav. Res. Regts. Nos. 6, 8.
6th Bavarian Res. Div. :	Bav. Res. Regts. Nos. 16, 17, 20, 21.
Bav. Ersatz Division :	Bav. Res. Regts. 14, 15 ; Ersatz Regt. No. 28.
89th Reserve Brigade :	Res. Regts. Nos. 209, 213.
Marine Brigade :	Marine Regts. Nos. 1, 2, 3.

¹ Left division before second tour.



MAP 3.



Scale of Yards.

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